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PRODUCT SELECTION GUIDE

2023 Q1

SGMICRO OVERVIEW

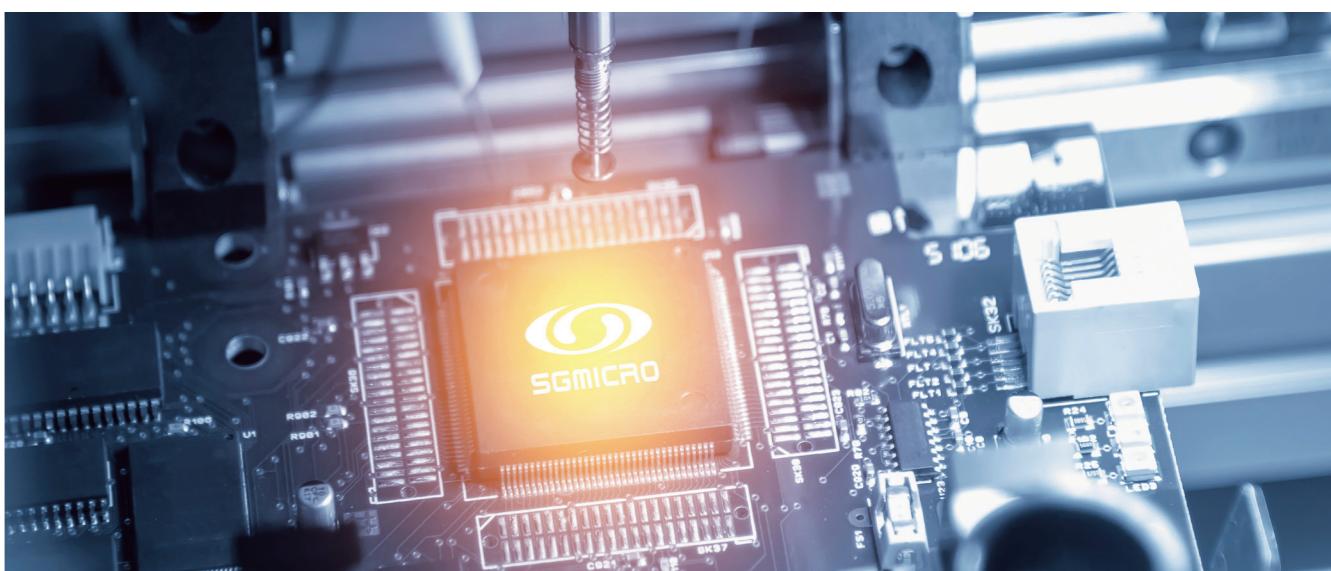
SG Micro Corp (SGMICRO) specializes in designing, marketing, and supporting high-performance and high-quality analog ICs, offering innovative solutions for a broad range of applications in wireless communication, consumer electronics, medical devices, automotive, and industrial markets.

SGMICRO's expertise in analog IC technology and close collaboration with customers are the driving forces behind its continuous improvements and innovations. Heavy investments in R&D and advanced technologies have allowed the company to introduce over 4,000 analog IC products with excellent reliability and consistency, including precision signal conditioning products such as amplifiers and comparators, buffers, current sensors, temperature sensors, ADC/DAC, analog and RF switches and interface products, as well as many energy-efficient power management ICs.

Innovative analog IC solutions across an extensive portfolio of leading-edge products enable our customers to target and lead diverse and fast-growing markets such as smart devices, mobile electronics, and green energy technologies, resulting in improved performance, including longer battery life, fewer peripheral components, smaller PCB space, and lower overall product costs.

At SGMICRO, quality and reliability are always at the top of the priority list. The company's goal is to become one of the world's leading analog IC solution providers by offering customers the best quality products and services. It is the company's policy to continually improve our technologies and systems in an ongoing and never-ending effort to exceed customer expectations. Through its strict QA system, SGMICRO ensures that the company's products meet or exceed the highest levels of quality and reliability standards.

The company strives to achieve a leading position in the analog IC industry through advanced design, superior performance, and excellent quality products that promote its customers' success. The company is committed to improving people's lives and the environment through advancements in technology and technical innovations.



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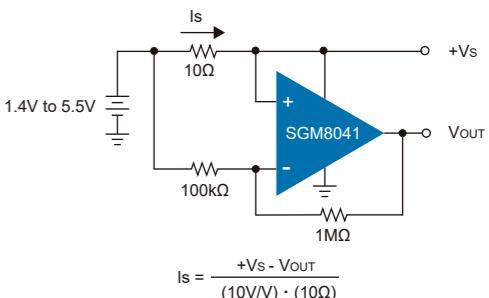
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Nano Power Operational Amplifiers

The Nano Power Operational Amplifier family is designed to support rail-to-rail input and output operation and has as low as 350nA quiescent current. These specifications make these operational amplifiers extremely appropriate for low frequency low power applications, such as battery current monitoring and sensor conditioning.

Amplifiers		Part Number	I _Q /Amp Typ (µA)	Shut-down	V _{CC} (V)	GBP Typ (kHz)	Slew Rate Typ (V/ms)	E _{NOISE} 0.1Hz ~ 10Hz (µV _{PP})	E _{NOISE} Typ @1kHz (nV/√Hz)	V _{OS} Max @25°C (mV)	TC of V _{OS} Typ (µV/°C)	I _B Typ (pA)	A _{VO} Typ (dB)	CMRR	Rail-to-Rail		Package	Features	High Side Battery Current Sensor
per Package															-Rail Input	-Rail Output			
1	SGM8040-1	0.55	No	1.4 ~ 5.5	11	4	5	180	0.23	1	10	120	92	Yes	Yes	SOT-23-5,SC70-5,SOIC-8	Very Low Quiescent Current, Rail-to-Rail Input and Output		
2	SGM8040-2	0.55	No	1.4 ~ 5.5	11	4	5	180	0.23	1	10	120	92	Yes	Yes	TDFN-2×2-8L,SOIC-8	Very Low Quiescent Current, Rail-to-Rail Input and Output		
1	SGM8041	0.71	No	1.4 ~ 5.5	14.5	3.3	3.4	135	2.5	2.5	1	93	84	Yes	Yes	SOT-23-5,SOIC-8,MSOP-8	Very Low Quiescent Current, Rail-to-Rail Input and Output		
2	SGM8042	0.67	No	1.4 ~ 5.5	14.5	4.2	3.2	180	2.5	2.5	1	93	84	Yes	Yes	SOIC-8,MSOP-8	Very Low Quiescent Current, Rail-to-Rail Input and Output		
4	SGM8044	0.67	No	1.4 ~ 5.5	15	3.4	3.2	190	2.5	2.5	1	93	83	Yes	Yes	SOIC-14,TSSOP-14,TQFN-3×3-16L	Very Low Quiescent Current, Rail-to-Rail Input and Output		
1	SGM8045	0.71	No	1.4 ~ 5.5	100	16	3.2	160	2.5	2.5	1	93	84	Yes	Yes	SOT-23-5,SOIC-8,MSOP-8	Stable for Gain of 10, 100kHz, Very Low I _Q , RRIO		
2	SGM8046	0.67	No	1.4 ~ 5.5	100	14.5	3	190	2.5	2.5	1	92	82	Yes	Yes	SOIC-8,MSOP-8	Stable for Gain of 10, 100kHz, Very Low I _Q , RRIO		
4	SGM8048	0.69	No	1.4 ~ 5.5	100	14.5	3.5	205	2.5	2.5	1	92	83	Yes	Yes	SOIC-14,TSSOP-14	Stable for Gain of 10, 100kHz, Very Low I _Q , RRIO		
1	SGM8141	0.38	No	1.4 ~ 5.5	5	1.5	4.9	125	2.5	2	1	90	80	Yes	Yes	SOT-23-5,SOIC-8,MSOP-8	Ultra Low Quiescent Current, Rail-to-Rail Input and Output		
2	SGM8142	0.35	No	1.4 ~ 5.5	5	1.6	4	130	2.5	2	1	93	83	Yes	Yes	SOIC-8,MSOP-8	Ultra Low Quiescent Current, Rail-to-Rail Input and Output		



Micro Power Operational Amplifiers

The Micro Power Operational Amplifier family is designed to support rail-to-rail input and output operation and has as low as 2.5µA quiescent current. These specifications make these operational amplifiers extremely appropriate for low frequency low power applications, such as battery current monitoring and sensor conditioning.

Amplifiers		Part Number	I _Q /Amp Typ (µA)	Shut-down	V _{CC} (V)	GBP Typ (MHz)	Slew Rate Typ (V/ms)	E _{NOISE} 0.1Hz ~ 10Hz (µV _{PP})	E _{NOISE} Typ @1kHz (nV/√Hz)	V _{OS} Max @25°C (mV)	TC of V _{OS} Typ (µV/°C)	I _B Typ (pA)	A _{VO} Typ (dB)	CMRR	Rail-to-Rail		Package	Features	
per Package															-Rail Input	-Rail Output			
1	SGM321	60	No	2.1 ~ 5.5	1	520			27	5	2.7	10	84	68	Yes	Yes	SC70-5,SOT-23-5	General Purpose Low Power Amp	
4	SGM324	60	No	2.1 ~ 5.5	1	520			27	5	2.7	10	84	68	Yes	Yes	SOIC-14,TSSOP-14	General Purpose Low Power Amp	
2	SGM358	60	No	2.1 ~ 5.5	1	520			27	5	2.7	10	84	68	Yes	Yes	SOIC-8,MSOP-8,DIP-8	General Purpose Low Power Amp	
1	SGM8038-1	6	No	1.4 ~ 5.5	0.145	130	6	110	0.8	3	2	125	94	Yes	Yes	SOT-23-5,SC70-5,SOIC-8	High Precision, Rail-to-Rail Input and Output		
2	SGM8038-2	6	No	1.4 ~ 5.5	0.145	130	6	110	0.8	3	2	125	94	Yes	Yes	SOT-23-8,SOIC-8,TDFN-2×2-8L	High Precision, Rail-to-Rail Input and Output		
1	SGM8049-1	2.5	No	1.8 ~ 5.5	0.12	80	3.5	75	0.85	0.6	1	118	100	Yes	Yes	SOT-23-5,SC70-5,TDFN-2×2-6L	Pico Amp Input Current, Micro Power, Rail-to-Rail Input and Output		
2	SGM8049-2	2.5	No	1.8 ~ 5.5	0.12	80	3.5	75	0.85	0.6	1	118	100	Yes	Yes	SOT-23-8,SOIC-8	Pico Amp Input Current, Micro Power, Rail-to-Rail Input and Output		
4	SGM8049-4	2.5	No	1.8 ~ 5.5	0.12	80	3.5	75	0.85	0.6	1	118	100	Yes	Yes	TSSOP-14	Pico Amp Input Current, Micro Power, Rail-to-Rail Input and Output		
1	SGM8210-1	50	No	3.3 ~ 24	1	300	3	25	1	1	5	120	115	Yes	Yes	SOT-23-5,SC70-5	High Voltage, Micro Power, Precision		
2	SGM8210-2	50	No	3.3 ~ 24	1	300	3	25	1	1	5	120	115	Yes	Yes	SOIC-8,MSOP-8,TDFN-2×3-8L	High Voltage, Micro Power, Precision		
4	SGM8210-4	50	No	3.3 ~ 24	1	300	3	25	1	1	5	120	115	Yes	Yes	SOIC-14	High Voltage, Micro Power, Precision		
1	SGM8240-1	2.8	No	2.7 ~ 24	0.1	50	3	100	1	3	5	120	110	Yes	Yes	SC70-5,SOT-23-5	High Voltage, Micro Power, Precision		
2	SGM8240-2	2.8	No	2.7 ~ 24	0.1	50	3	100	1	3	5	120	110	Yes	Yes	TDFN-2×3-8L,SOIC-8,MSOP-8	High Voltage, Micro Power, Precision		
4	SGM8240-4	2.8	No	2.7 ~ 24	0.1	50	3	100	1	3	5	120	110	Yes	Yes	SOIC-14	High Voltage, Micro Power, Precision		

Amplifiers

Micro Power Operational Amplifiers

Amplifiers per Package		Part Number	I _{Q/Amp} Typ (µA)	Shut-down	V _{CC} (V)	GBP Typ (MHz)	Slew Rate Typ (V/ms)	E _{NOISE} 0.1Hz ~ 10Hz Typ (µV _{PP})	E _{NOISE} @1kHz Typ (nV/√Hz)	V _{OS} Max @25°C (mV)	TC of V _{OS} Typ (µV/°C)	I _B Typ (pA)	A _{VO} Typ (dB)	CMRR Typ (dB)	Rail-to-Rail Input	Rail-to-Rail Output	Package	Features
1	SGM8271	150	No	4.5 ~ 36	1.4	7000		43	3	3	20	100	95	No	Yes	SOT-23-5,SOIC-8,MSOP-8	1.4MHz, 7V/µs, Low Power, Rail-to-Rail Output	
2	SGM8272	150	No	4.5 ~ 36	1.4	7000		43	3	3	20	100	95	No	Yes	SOIC-8,MSOP-8	1.4MHz, 7V/µs, Low Power, Rail-to-Rail Output	
4	SGM8274	150	No	4.5 ~ 36	1.4	7000		43	3	3	20	100	95	No	Yes	SOIC-14,TSSOP-14	1.4MHz, 7V/µs, Low Power, Rail-to-Rail Output	
1	SGM8521	5.5	No	2.1 ~ 5.5	0.15	50		85	3.5	2	3	110	87	Yes	Yes	SOT-23-5,SOIC-8	Low Bias Current, Micro Power, Rail-to-Rail Input and Output	
2	SGM8522	5.5	No	2.1 ~ 5.5	0.15	50		85	3.5	2	3	110	87	Yes	Yes	SOIC-8,MSOP-8	Low Bias Current, Micro Power, Rail-to-Rail Input and Output	
4	SGM8524	5.5	No	2.1 ~ 5.5	0.15	50		85	3.5	2	3	110	87	Yes	Yes	SOIC-14,TSSOP-14	Low Bias Current, Micro Power, Rail-to-Rail Input and Output	
1	SGM8531	18	No	2.1 ~ 5.5	0.5	200		33	3.5	1.7	0.5	104	75	Yes	Yes	SOT-23-5,SOIC-8	Low Bias Current, Micro Power, Rail-to-Rail Input and Output	
2	SGM8532	18	No	2.1 ~ 5.5	0.5	200		33	3.5	1.7	0.5	104	75	Yes	Yes	SOIC-8,MSOP-8	Low Bias Current, Micro Power, Rail-to-Rail Input and Output	
4	SGM8534	18	No	2.1 ~ 5.5	0.5	200		33	3.5	1.7	0.5	104	75	Yes	Yes	SOIC-14,TSSOP-14	Low Bias Current, Micro Power, Rail-to-Rail Input and Output	
1	SGM8535	80	No	1.8 ~ 5.5	1.5	800		30	3.4	1.5	3	103	85	No	Yes	SOT-23-5,SC70-5,SOIC-8,MSOP-8	1.5MHz, 1.8V, Unity-Gain Stable, Rail-to-Rail Output	
2	SGM8536	80	No	1.8 ~ 5.5	1.5	800		30	3.4	1.5	3	103	85	No	Yes	SOIC-8,MSOP-8	1.5MHz, 1.8V, Unity-Gain Stable, Rail-to-Rail Output	
1	SGM8537	80	Yes	1.8 ~ 5.5	1.5	800		30	3.4	1.5	3	103	85	No	Yes	SOT-23-6,SOIC-8,MSOP-8	1.5MHz, 1.8V, Unity-Gain Stable, Rail-to-Rail Output	
4	SGM8538	80	No	1.8 ~ 5.5	1.5	800		30	3.4	1.5	3	103	85	No	Yes	SOIC-14,TSSOP-14	1.5MHz, 1.8V, Unity-Gain Stable, Rail-to-Rail Output	
1	SGM8541	46	No	2.1 ~ 5.5	1.1	520		27	3.5	2.7	0.5	105	80	Yes	Yes	SOT-23-5,SOIC-8,SC70-5	Pico Amp Input Current, Micro Power, Rail-to-Rail Input and Output	
2	SGM8542	46	No	2.1 ~ 5.5	1.1	520		27	3.5	2.7	0.5	105	80	Yes	Yes	SOIC-8,MSOP-8,TSSOP-8	Pico Amp Input Current, Micro Power, Rail-to-Rail Input and Output	
1	SGM8543	48	Yes	2.1 ~ 5.5	1.1	520		27	3.5	2.7	0.5	105	76	Yes	Yes	SOT-23-6,SOIC-8	Pico Amp Input Current, Micro Power, Rail-to-Rail Input and Output	
4	SGM8544	46	No	2.1 ~ 5.5	1.1	520		27	3.5	2.7	0.5	105	80	Yes	Yes	SOIC-14,TSSOP-14	Pico Amp Input Current, Micro Power, Rail-to-Rail Input and Output	
1	SGM8545	48	No	2.1 ~ 5.5	1.1	520		27	3.5	2.7	0.5	105	76	Yes	Yes	SOT-23-5	Pico Amp Input Current, Micro Power, Rail-to-Rail Input and Output	

Amplifiers

High Speed Operational Amplifiers

Amplifiers per Package		Part Number	GBP Typ (MHz)	Bandwidth @-3dB (MHz)	Shut-down	V _{CC} (V)	Slew Rate Typ (V/µs)	E _{NOISE} 1MHz Typ (nV/√Hz)	V _{OS} Max @25°C (mV)	TC of V _{OS} Typ (µV/°C)	I _B Typ (pA)	I _{Q/Amp} Typ (mA)	A _{VO} Typ (dB)	CMRR Typ (dB)	Rail-to-Rail Input	Rail-to-Rail Output	Package	Features
1	SGM8051		250	No	2.5 ~ 5.5	130	8.1	8	4.4	6	2.3	104	80	No	Yes	SOT-23-5,SOIC-8	250MHz Rail-to-Rail Output Amp	
2	SGM8052		250	No	2.5 ~ 5.5	130	8.1	8	4.4	6	2.3	104	80	No	Yes	SOIC-8,MSOP-8	250MHz Rail-to-Rail Output Amp	
1	SGM8053		250	Yes	2.5 ~ 5.5	130	8.1	8	4.4	6	2.3	104	80	No	Yes	SOT-23-6,SOIC-8	250MHz Rail-to-Rail Output Amp with Shutdown	
4	SGM8054		250	No	2.5 ~ 5.5	130	8.1	8	4.4	6	2.3	104	80	No	Yes	SOIC-14,TSSOP-14	250MHz Rail-to-Rail Output Amp	
2	SGM8055		250	Yes	2.5 ~ 5.5	130	8.1	8	4.4	6	2.3	104	80	No	Yes	MSOP-10	250MHz Rail-to-Rail Output Amp with Shutdown	
1	SGM80581	100	220	No	2.5 ~ 5.5	160	7	3	6.5	2	4.5	109	71	Yes	Yes	SOT-23-5,SOIC-8	220MHz Rail-to-Rail Input and Output Amp	
2	SGM80582	100	220	No	2.5 ~ 5.5	160	7	3	6.5	2	4.5	109	71	Yes	Yes	SOIC-8,MSOP-8	220MHz Rail-to-Rail Input and Output Amp	
4	SGM80584	100	220	No	2.5 ~ 5.5	160	7	3	6.5	2	4.5	109	71	Yes	Yes	SOIC-14	220MHz Rail-to-Rail Input and Output Amp	
1	SGM8061		500	No	2.5 ~ 5.5	420	5.6	8	3	6	8.2	104	80	No	Yes	SOT-23-5,SOIC-8	500MHz Rail-to-Rail Output Amp	
2	SGM8062		500	No	2.5 ~ 5.5	420	5.6	8	3	6	8.2	104	80	No	Yes	SOIC-8,MSOP-8	500MHz Rail-to-Rail Output Amp	
1	SGM8063		500	Yes	2.5 ~ 5.5	420	5.6	8	3	6	8.2	104	80	No	Yes	SOT-23-6,SOIC-8	500MHz Rail-to-Rail Output Amp with Shutdown	

High Speed Operational Amplifiers

Amplifiers per Package	Part Number	GBP Typ (MHz)	Bandwidth @-3dB (MHz)	Shut-down	V _{CC} (V)	Slew Rate Typ (V/μs)	E _{NOISE} Typ @1MHz (nV/√Hz)	V _{OS} Max @25°C (mV)	TC of V _{OS} Typ (μV/°C)	I _B Typ (pA)	I _{Q/Amp} Typ (mA)	A _{VO} Typ (dB)	CMRR Typ (dB)	Rail-to-Rail Input	Rail-to-Rail Output	Package	Features
1	SGM8091	350	No	2.5 ~ 5.5	265	5.9	8	3.7	6	4.3	104	80	No	Yes	SOT-23-5,SOIC-8	350MHz Rail-to-Rail Output Amp	
2	SGM8092	350	No	2.5 ~ 5.5	265	5.9	8	3.7	6	4.3	104	80	No	Yes	SOIC-8,MSOP-8	350MHz Rail-to-Rail Output Amp	
1	SGM8093	350	Yes	2.5 ~ 5.5	265	5.9	8	3.7	6	4.3	104	80	No	Yes	SOT-23-6,SOIC-8	350MHz Rail-to-Rail Output Amp with Shutdown	
4	SGM8094	350	No	2.5 ~ 5.5	265	5.9	8	3.7	6	4.3	104	80	No	Yes	SOIC-14,TSSOP-14	350MHz Rail-to-Rail Output Amp	
1	SGM8301	57	110	No	4.5 ~ 12	140	65 ^{††}	18	12	7.5	105	75	No	Yes	SOT-23-5,SOIC-8,MSOP-8	110MHz High Voltage Rail-to-Rail Output Amp	
2	SGM8302	57	110	No	4.5 ~ 12	140	65 ^{††}	18	12	7.5	105	75	No	Yes	SOIC-8,MSOP-8	110MHz High Voltage Rail-to-Rail Output Amp	
4	SGM8304	57	110	No	4.5 ~ 12	140	65 ^{††}	18	12	7.5	105	75	No	Yes	SOIC-14,TSSOP-14	110MHz High Voltage Rail-to-Rail Output Amp	
1	SGM8305-1	120	No	4.5 ~ 16	160	80 ^{†††}	4 ^{††††}			9	76	82	No	Yes	SOT-23-5,SOIC-8,MSOP-8	120MHz High Voltage Rail-to-Rail Output Amp	
2	SGM8305-2	120	No	4.5 ~ 16	160	80 ^{†††}	4 ^{††††}			9	76	82	No	Yes	SOIC-8,MSOP-8	120MHz High Voltage Rail-to-Rail Output Amp	
4	SGM8305-4	120	No	4.5 ~ 16	160	80 ^{†††}	4 ^{††††}			9	76	82	No	Yes	SOIC-14,TSSOP-14	120MHz High Voltage Rail-to-Rail Output Amp	
1	SGM8965-1	50		No	2.2 ~ 5.5	30	4.5 [†]	0.25	1.2	0.5	5.3	115	100	Yes	Yes	SOT-23-5,SOIC-8	50MHz High Precision Amp
2	SGM8965-2	50		No	2.2 ~ 5.5	30	4.5 [†]	0.25	1.2	0.5	5.3	115	100	Yes	Yes	SOIC-8,MSOP-8	50MHz High Precision Amp
1	SGM8965A-1	50		No	2.2 ~ 5.5	30	5.5 [†]	0.28	1.4	1	5	118	94	Yes	Yes	SOT-23-5,SOIC-8	50MHz High Precision Amp
2	SGM8965A-2	50		No	2.2 ~ 5.5	30	5.5 [†]	0.28	1.4	1	5	118	94	Yes	Yes	MSOP-8,SOIC-8	50MHz High Precision Amp

Notes: [†] Typical Values @ 100kHz

^{††} Typical Values @ 10kHz

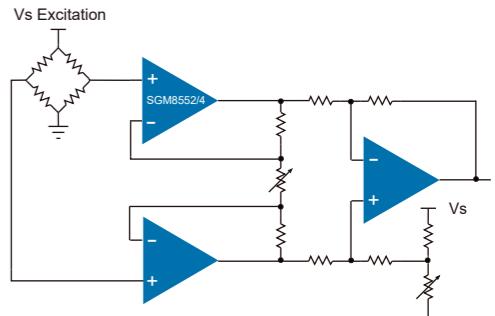
^{†††} Typical Values @ 1kHz

^{††††} Typical Values @ 25°C

Amplifiers

High Precision Operational Amplifiers

The High Precision Operational Amplifier family provides high precision, low noise, low drift, rail-to-rail input and output, and single/dual/quad channel operational amplifiers. The internal auto-zero circuit cancels the input offset voltage and drift over time and temperature, and eliminates the 1/f noise as well. The combination of these characteristics makes them good choices for temperature, position and pressure sensors, medical equipment, strain gauge amplifiers, or any other industrial applications requiring high precision, low noise and long term stability.



Amplifiers per Package	Part Number	V _{OS} Max @25°C (mV)	TC of V _{OS} Typ (μV/°C)	I _B Typ (pA)	Shut-down	V _{CC} (V)	GBP Typ (MHz)	Slew Rate (V/μs)	E _{NOISE} 0.1Hz ~ 10Hz (μV _{PP})	E _{NOISE} 0.1Hz ~ 10Hz (nV/√Hz)	I _{Q/Amp} Typ (μA)	A _{VO} Typ (dB)	CMRR Typ (dB)	Rail-to-Rail Input	Rail-to-Rail Output	Package	Features
1	SGM8249-1	0.01	0.012	100	No	4.5 ~ 36	8	6	0.2	10	850	150	140	No	Yes	SOT-23-5,SOIC-8	High Voltage, High Precision, Low Noise, Rail-to-Rail Output
2	SGM8249-2	0.01	0.012	100	No	4.5 ~ 36	8	6	0.2	10	850	150	140	No	Yes	SOIC-8	High Voltage, High Precision, Low Noise, Rail-to-Rail Output
4	SGM8249-4	0.012	0.014	100	No	4.5 ~ 36	8	5	0.2	12	800	150	140	No	Yes	SOIC-14,TSSOP-14	High Voltage, High Precision, Low Noise, Rail-to-Rail Output
1	SGM8250-1	0.05	0.11	80	No	3 ~ 24	0.35	0.09	0.85	40	50	145	130	Yes	Yes	SOT-23-5,SC70-5,SOIC-8	High Voltage, Micro Power, Zero-Drift
2	SGM8250-2	0.05	0.11	80	No	3 ~ 24	0.35	0.09	0.85	40	50	145	130	Yes	Yes	SOIC-8,TDFN-3x3-8L	High Voltage, Micro Power, Zero-Drift
1	SGM8251	0.018	0.02	100	No	4.5 ~ 36	2.8	1.3	0.4	20	450	150	135	No	Yes	SOT-23-5,SOIC-8,MSOP-8	High Voltage, High Precision, Low Noise
2	SGM8252A	0.018	0.02	100	No	4.5 ~ 36	2.8	1.3	0.4	20	450	150	135	No	Yes	SOIC-8,MSOP-8	High Voltage, High Precision, Low Noise
1	SGM8255A-1	0.025	0.018	100	No	4.5 ~ 36	8.5	5	0.2	12	850	150	135	No	Yes	SOT-23-5,SOIC-8,MSOP-8	High Voltage, High Precision, Low Noise
2	SGM8255A-2	0.025	0.018	100	No	4.5 ~ 36	8.5	5	0.2	12	850	150	135	No	Yes	SOIC-8,MSOP-8	High Voltage, High Precision, Low Noise

High Precision Operational Amplifiers

Amplifiers per Package	Part Number	V_{OS} Max @25°C (mV)	TC of V_{OS} Typ (μV/°C)	I_B Typ (pA)	Shut-down	V_{CC} (V)	GBP Typ (MHz)	Slew Rate (V/μs)	E_{NOISE} 0.1Hz ~ 10Hz (μV _{PP})	E_{NOISE} Typ @1kHz (nV/√Hz)	I_Q/Amp Typ (μA)	A_{VO} Typ (dB)	CMRR Typ (dB)	Rail-to-Rail Input	Rail-to-Rail Output	Package	Features
1	SGM8291	1.5	3	20	No	4.5 ~ 36	1.4	7	43	150	100	95	No	Yes	SOT-23-5,SOIC-8,MSOP-8	High Voltage, Precision, Low Power, Rail-to-Rail Output	
2	SGM8292	1.5	3	20	No	4.5 ~ 36	1.4	7	43	150	100	95	No	Yes	SOIC-8,MSOP-8	High Voltage, Precision, Low Power, Rail-to-Rail Output	
4	SGM8294	1.5	3	20	No	4.5 ~ 36	1.4	7	43	150	100	95	No	Yes	SOIC-14,TSSOP-14	High Voltage, Precision, Low Power, Rail-to-Rail Output	
1	SGM8551	0.02	0.02	10	No	2.5 ~ 5.5	1.53	0.9	0.8	47.5	930	145	105	Yes	Yes	SOT-23-5,SOIC-8,MSOP-8	High Precision, Low Noise, Zero-Drift
2	SGM8552	0.02	0.02	10	No	2.5 ~ 5.5	1.53	0.9	0.8	47.5	465	145	105	Yes	Yes	SOIC-8,MSOP-8	High Precision, Low Noise, Zero-Drift
4	SGM8554	0.025	0.07	10	No	2.5 ~ 5.5	1.5	1	1.6	63	465	145	105	Yes	Yes	SOIC-14,TSSOP-14	High Precision, Low Noise, Zero-Drift
1	SGM8555	0.09	0.05	30	No	2.5 ~ 5.5	3.5	3	0.6	21	950	133	98	Yes	Yes	SOT-23-5,SOIC-8,MSOP-8	3.5MHz, 3V/μs, High Precision, Low Noise, RRIO
2	SGM8556	0.09	0.05	30	No	2.5 ~ 5.5	3.5	3	0.6	21	950	133	98	Yes	Yes	SOIC-8,MSOP-8	3.5MHz, 3V/μs, High Precision, Low Noise, RRIO
1	SGM8557-1	0.005	0.027	240	No	2.7 ~ 5.5	15	7	0.5	30	1150	144	120	Yes	Yes	SOT-23-5,SOIC-8,MSOP-8	High Precision, Low Noise, Zero-Drift
2	SGM8557-2	0.005	0.027	240	No	2.7 ~ 5.5	15	7	0.5	30	1150	144	120	Yes	Yes	SOIC-8,MSOP-8	High Precision, Low Noise, Zero-Drift
1	SGM8557-3	0.005	0.027	240	Yes	2.7 ~ 5.5	15	7	0.5	30	1150	144	120	Yes	Yes	SOT-23-6,SOIC-8	High Precision, Low Noise, Zero-Drift, Single Amp with Shutdown
2	SGM8557-5	0.005	0.027	240	Yes	2.7 ~ 5.5	15	7	0.5	30	1150	144	120	Yes	Yes	MSOP-10	High Precision, Low Noise, Zero-Drift, Dual Amps with Shutdown
1	SGM8558-1	0.015	0.013	600	No	2.8 ~ 5.5	15	8	0.2	8	860	139	126	No	Yes	SOT-23-5,SOIC-8	High Precision, Low Noise, Zero-Drift
2	SGM8558-2	0.015	0.013	600	No	2.8 ~ 5.5	15	8	0.2	8	860	139	126	No	Yes	TDFN-3x3-8L,SOIC-8,WLCSP-1.45x1.45-8B	High Precision, Low Noise, Zero-Drift
1	SGM8558-3	0.015	0.013	600	Yes	2.8 ~ 5.5	15	8	0.2	8	860	139	126	No	Yes	SOT-23-6	High Precision, Low Noise, Zero-Drift, Single Amp with Shutdown
4	SGM8558-4	0.015	0.013	600	No	2.8 ~ 5.5	15	8	0.2	8	860	139	126	No	Yes	SOIC-14	High Precision, Low Noise, Zero-Drift
1	SGM8581	0.1	0.1	15	No	2.5 ~ 5.5	1.45	0.75	0.85	47.5	445	145	90	Yes	Yes	SOT-23-5,SOIC-8,MSOP-8	High Precision, Low Noise, Zero-Drift
2	SGM8582	0.1	0.1	15	No	2.5 ~ 5.5	1.5	0.9	0.8	49	430	145	95	Yes	Yes	SOIC-8,MSOP-8	High Precision, Low Noise, Zero-Drift
4	SGM8584	0.1	0.15	60	No	2.5 ~ 5.5	1.5	0.9	1.4	78	430	135	92	Yes	Yes	SOIC-14,TSSOP-14	High Precision, Low Noise, Zero-Drift
1	SGM8591	0.5	0.2	15	No	2.5 ~ 5.5	1.45	0.75	0.85	47.5	445	145	90	Yes	Yes	SOT-23-5,SOIC-8	High Precision, Low Noise, Zero-Drift
2	SGM8592	0.5	0.2	15	No	2.5 ~ 5.5	1.5	0.9	0.8	49	430	145	95	Yes	Yes	SOIC-8,MSOP-8	High Precision, Low Noise, Zero-Drift
4	SGM8594	0.45	0.2	60	No	2.5 ~ 5.5	1.5	0.9	1.4	78	480	118	92	Yes	Yes	SOIC-14,TSSOP-14	High Precision, Low Noise, Zero-Drift
2	SGM8922A	0.9	1.6		No	3.0 ~ 5.5	12.7	6.8		6	3000	104	108	No	Yes	SOIC-8,MSOP-8,TSSOP-8	High Precision, 300mA Output Short Circuit Current, Rail-to-Rail Output
2	SGM8924A	1	1.5		No	3.0 ~ 5.5	8.9	5.1		6	5500	105	102	No	Yes	MSOP-10	High Precision, 300mA Output Short Circuit Current, Rail-to-Rail Output
1	SGM8925	0.6	2.5	1	No	1.6 ~ 5.5	0.11	0.04		105	6.4	93	85	No	Yes	SOT-23-5,SC70-5,SOIC-8,MSOP-8	High Precision, Very Low Quiescent Current, Low-side Current Sense
2	SGM8926	0.9	2.5	1	No	1.6 ~ 5.5	0.11	0.04		105	6.4	93	85	No	Yes	SOIC-8,MSOP-8	High Precision, Very Low Quiescent Current, Low-side Current Sense
1	SGM8927	0.6	2.5	1	Yes	1.6 ~ 5.5	0.11	0.04		105	6.4	93	85	No	Yes	SOT-23-6,SOIC-8,MSOP-8	High Precision, Very Low Quiescent Current, Low-side Current Sense
1	SGM8931	0.9	1.5	3	No	1.8 ~ 5.5	1.5	0.8		30	80	100	86	No	Yes	SOT-23-5,SC70-5,SOIC-8,MSOP-8	High Precision, Low Power, Low Noise, Rail-to-Rail Output
2	SGM8932	0.9	1.5	3	No	1.8 ~ 5.5	1.5	0.8		30	80	100	86	No	Yes	SOIC-8,MSOP-8	High Precision, Low Power, Low Noise, Rail-to-Rail Output
1	SGM8933	0.9	1.5	3	Yes	1.8 ~ 5.5	1.5	0.8		30	80	100	86	No	Yes	SOT-23-6,SOIC-8,MSOP-8	High Precision, Low Power, Low Noise, Rail-to-Rail Output
4	SGM8934	0.9	1.5	3	No	1.8 ~ 5.5	1.5	0.8		30	80	100	86	No	Yes	SOIC-14,TSSOP-14	High Precision, Low Power, Low Noise, Rail-to-Rail Output
1	SGM8951	0.8			No	1.8 ~ 5.5	0.11	0.045	3.5	115	26	92	92	Yes	Yes	SOT-23-5,SOIC-8	High Precision, Low Noise, Micro Power, RRIO
2	SGM8952	0.8			No	1.8 ~ 5.5	0.11	0.045	3.5	115	17	92	92	Yes	Yes	SOIC-8,MSOP-8	High Precision, Low Noise, Micro Power, RRIO
1	SGM8953-1	0.05	0.06	80	No	1.8 ~ 5.5	0.2	0.05	1	50	17	118	106	Yes	Yes	SOT-23-5,SOIC-8,UTDFN-1.6x1.6-6L	Ultra Low Power, CMOS, Zero-Drift, RRIO

Amplifiers

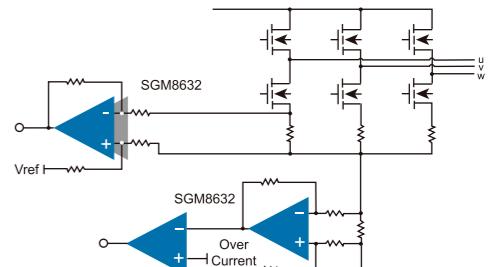
High Precision Operational Amplifiers

Amplifiers per Package	Part Number	V_{OS} Max @25°C (mV)	TC of V_{OS} Typ (µV/°C)	I_B Typ (pA)	Shutdown	V_{CC} (V)	GBP (MHz)	Slew Rate (V/µs)	E_{NOISE} Typ (µV _{PP}) 0.1Hz ~ 10Hz	E_{NOISE} Typ @1kHz (nV/√Hz)	I_Q/Amp Typ (µA)	A_{VO} Typ (dB)	CMRR Typ (dB)	Rail-to -Rail Input	Rail-to -Rail Output	Package	Features
2	SGM8953-2	0.05	0.06	80	No	1.8 ~ 5.5	0.2	0.05	1	50	17	118	106	Yes	Yes	SOIC-8,MSOP-8,TDFN-2x2-8L	Ultra Low Power, CMOS, Zero-Drift, RRIO
1	SGM8954-1	0.035	0.055	60	No	1.8 ~ 5.5	0.11	0.04	1	65	9	125	108	Yes	Yes	SOT-23-5,SOIC-8,UTDFN-1.6x1.6-6L	Ultra Low Power, CMOS, Zero-Drift, RRIO
2	SGM8954-2	0.035	0.055	60	No	1.8 ~ 5.5	0.11	0.04	1	65	9	125	108	Yes	Yes	SOIC-8,MSOP-8,TDFN-2x2-8L	Ultra Low Power, CMOS, Zero-Drift, RRIO
1	SGM8955	0.05	0.08	130	No	1.8 ~ 5.5	0.35	0.18	2		20	121	100	Yes	Yes	SOT-23-5,SC70-5,SOIC-8	High Precision, Low Noise, Micro Power, RRIO
2	SGM8956	0.05	0.08	130	No	1.8 ~ 5.5	0.35	0.18	2		20	121	100	Yes	Yes	SOIC-8,MSOP-8,TDFN-3x3-8L	High Precision, Low Noise, Micro Power, RRIO
1	SGM8957-1	0.025	0.08	130	No	1.8 ~ 5.5	0.35	0.18	2		20	121	100	Yes	Yes	SOT-23-5,SC70-5,SOIC-8	High Precision, Low Noise, Micro Power, RRIO
2	SGM8957-2	0.025	0.08	130	No	1.8 ~ 5.5	0.35	0.18	2		20	121	100	Yes	Yes	SOIC-8,TDFN-3x3-8L,MSOP-8	High Precision, Low Noise, Micro Power, RRIO
1	SGM8958-1	0.01	0.03	500	No	1.8 ~ 5.5	1.8	0.7	0.3	12	165	136	125	Yes	Yes	SOT-23-5,SC70-5,SOIC-8	High Precision, Low Noise, Zero-Drift
2	SGM8958-2	0.01	0.03	500	No	1.8 ~ 5.5	1.8	0.7	0.3	12	165	136	125	Yes	Yes	SOIC-8,TDFN-3x3-8L	High Precision, Low Noise, Zero-Drift
1	SGM8959-1	0.01	0.032	350	No	1.8 ~ 5.5	4	1		8	380	127	123	Yes	Yes	SOT-23-5,SC70-5,SOIC-8	High Precision, Low Noise, Zero-Drift
2	SGM8959-2	0.01	0.032	350	No	1.8 ~ 5.5	4	1		8	380	127	123	Yes	Yes	SOIC-8,TDFN-3x3-8L	High Precision, Low Noise, Zero-Drift
1	SGMOP07	0.17	0.5	1000	No	3.6 ~ 36	3	4	0.3	8.5	900	120	140	No	Yes	SOIC-8	3MHz, Low Noise, High Voltage Amp with Offset Nulling Function
1	SGMOP07C	0.15	0.3	1000	No	3.6 ~ 36	0.6	3	0.3	8.5	750	130	140	No	Yes	SOIC-8	600kHz, Low Noise, High Voltage Amp
1	SGMOP07E	0.15	0.3	1000	No	3.6 ~ 36	0.6	3	0.3	8.5	750	130	140	No	Yes	SOIC-8	600kHz, Low Noise, High Voltage Amp
1	SGMOP17C	0.12	0.02	100	No	4.5 ~ 36	2.8	1.3	0.4	20	450	150	135	No	Yes	SOT-23-5	2.8MHz, High Voltage, High Precision, Low Noise Rail-to-Rail Output, Single Amp
2	SGMOP17C-2	0.12	0.02	100	No	4.5 ~ 36	2.8	1.3	0.4	20	450	150	135	No	Yes	SOIC-8	2.8MHz, High Voltage, High Precision, Low Noise Rail-to-Rail Output, Dual Amps

Amplifiers

Low Noise Operational Amplifiers

The Low Noise Operational Amplifier family provides rail-to-rail input and output with an excellent speed/power consumption ratio. They are designed to provide optimal performance in low noise systems, providing rail-to-rail output swing into heavy loads. The combination of these characteristics makes them extremely suitable for sensor interfaces, high speed current sensing and active filtering.



Amplifiers per Package	Part Number	E_{NOISE} Typ @1kHz (nV/√Hz)	I_{NOISE} Typ @1kHz (pA/√Hz)	GBP Typ (MHz)	Slew Rate (V/µs)	I_{OUT} Typ (mA)	V_{OS} Min @25°C (mV)	V_{OS} Max @25°C (mV)	TC of V_{OS} Typ (µV/°C)	I_B Typ (pA)	V_{CC} (V)	I_Q/Amp Typ (mA)	A_{VO} Typ (dB)	CMRR Typ (dB)	Rail-to -Rail I/O	Package	Features
2	SGM5532	5	1	20	18	27	0.5	0.6	550000	5 ~ 36	4.25	140	140	Output	SOIC-8	High Voltage, Low Noise	
1	SGM721	12.5		11	8.5	52	4	2.1	1	2.1 ~ 5.5	1.2	89	75	Yes	SOT-23-5,SOIC-8,SC70-5	11MHz, 8.5V/µs, Low Noise, RRIO	
2	SGM722	12.5		11	8.5	52	4	2.1	1	2.1 ~ 5.5	1.1	89	75	Yes	SOIC-8,MSOP-8,TSSOP-8	11MHz, 8.5V/µs, Low Noise, RRIO	
1	SGM723	12.5		11	8.5	52	4	2.1	1	2.1 ~ 5.5	1.2	89	75	Yes	SOT-23-6,SOIC-8	11MHz, 8.5V/µs, Low Noise, Single Amp with Shutdown, RRIO	
4	SGM724	12.5		11	8.5	52	4	2.1	1	2.1 ~ 5.5	1.1	89	75	Yes	SOIC-14,TSSOP-14	11MHz, 8.5V/µs, Low Noise, RRIO	
1	SGM8212-1	15	0.3	2.5	1.5	16	1.8	1.1	5	2.7 ~ 36	0.475	140	98	Yes	SOT-553-5,SOT-23-5,SOIC-8	Low Noise, High Voltage, RRIO	
2	SGM8212-2	15	0.3	2.5	1.5	16	1.8	1.1	5	2.7 ~ 36	0.475	140	98	Yes	SOIC-8,TDFN-3x3-8L,MSOP-8	Low Noise, High Voltage, RRIO	
1	SGM8261-1	1.6	6	16	16	65 [†]	0.35	1	40000	3.6 ~ 36	3.8	140	135	Output	SOIC-8	16MHz, Ultra Low Noise, HiFi Audio Amp	
2	SGM8261-2	1.6	6	16	16	65 [†]	0.35	1	40000	3.6 ~ 36	3.8	140	135	Output	TDFN-3x3-8BL,SOIC-8,MSOP-8	16MHz, Ultra Low Noise, HiFi Audio Amp	

Note: [†] Typical Values @ 25°C

Low Noise Operational Amplifiers

Amplifiers per Package	Part Number	E _{NOISE} Typ @1kHz (nV/√Hz)	I _{NOISE} Typ @1kHz (pA/√Hz)	GBP Typ (MHz)	Slew Rate Typ (V/μs)	I _{OUT} Min @25°C (mA)	V _{OS} Max @25°C (mV)	TC of V _{OS} Typ (μV/°C)	I _B Typ (pA)	V _{CC} (V)	I _{O/Amp} Typ (mA)	CMRR Typ (dB)	Rail-to-Rail I/O	Package	Features	
2	SGM8261-5	1.6	6	16	16	110 [†]	0.35	1	40000	3.6 ~ 36	4.1	150	136	Output	TDFN-3×3-10L,MSOP-10	16MHz, Ultra Low Noise, HiFi Audio Amp
2	SGM8262-2	3.5 ^{††}	4 ^{††}	50	33	200 [†]	0.5	0.5	40000	4.5 ~ 36	9	110	125	Output	SOIC-8,TDFN-3×3-8BL	50MHz, Ultra Low Noise, HiFi High Output Current Audio Amp
1	SGM8263-1	4.5	5	10	10	36	0.0085	0.01	60000	4 ~ 36	2.5	145	135	Output	SOT-23-5,SOIC-8	10MHz, Ultra Low Noise, Ultra Low Offset
2	SGM8263-2	4.5	5	10	10	36	0.0085	0.01	60000	4 ~ 36	2.5	145	135	Output	SOIC-8	10MHz, Ultra Low Noise, Ultra Low Offset
2	SGM8264-2	1.6	6	16	16	110 [†]	0.35	1	40000	3.6 ~ 36	4.1	140	120	Output	SOIC-8	16MHz, Ultra Low Noise, HiFi Audio Amp
2	SGM8270-2	15	0.3	2.5	8	28	2.8	0.8	10	3.3 ~ 36	0.5	120	85	Yes	SOIC-8,MSOP-8	Precision, High Voltage, RRIO
4	SGM8270-4	15	0.3	2.2	8	28	1.2	0.8	5	3.3 ~ 36	0.5	120	88	Yes	SOIC-14,TSSOP-14	Precision, High Voltage, RRIO
1	SGM8273-1	9	0.7	4	6	18	1	2	10	3.3 ~ 36	0.6	90	86	Yes	SOT-23-5,SOIC-8,MSOP-8	High Voltage, Precision, RRIO
2	SGM8273-2	9	0.7	4	6	18	1	2	10	3.3 ~ 36	0.6	90	86	Yes	SOIC-8	High Voltage, Precision, RRIO
4	SGM8273-4	9	0.7	4	6	18	1	2	10	3.3 ~ 36	0.6	90	86	Yes	SOIC-14	High Voltage, Precision, RRIO
1	SGM8275-1	8.5	1.5	0.6	3	21	0.15	0.3	1000	3.6 ~ 36	0.75	130	140	Output	SOT-23-5	600kHz, Low Noise, High Voltage Amp
2	SGM8275-2	8.5	1.5	0.6	3	21	0.15	0.3	1000	3.6 ~ 36	0.75	130	140	Output	SOIC-8	600kHz, Low Noise, High Voltage Amp
1	SGM8276-1	10	0.5	10	8	40	1.5	1	50	3.3 ~ 36	1.4	120	80	Yes	SOT-23-5	Low Noise, High Precision, High Voltage, RRIO
2	SGM8276-2	10	0.5	10	8	40	1.5	1	50	3.3 ~ 36	1.4	120	80	Yes	SOIC-8	Low Noise, High Precision, High Voltage, RRIO
4	SGM8276-4	10	0.5	10	8	40	1.5	1	50	3.3 ~ 36	1.4	120	80	Yes	SOIC-14	Low Noise, High Precision, High Voltage, RRIO
2	SGM8278-2	15	0.3	3.3	2	55	2	2	10	3 ~ 36	1.2	120	100	Yes	SOIC-8,MSOP-8,TDFN-2×2-8AL, TDFN-3×3-8BL,WLCSP-1.57×1.57-8B	Low Noise, High Voltage, RRIO
1	SGM8295-1	4.5	2	9	8	28	0.25	0.4	1000	3.6 ~ 36	1.5	130	140	Output	SOIC-8,SOT-23-5	9MHz, Low Noise, High Voltage Amp
2	SGM8295-2	4.5	2	9	8	28	0.25	0.4	1000	3.6 ~ 36	1.5	130	140	Output	SOIC-8,MSOP-8	9MHz, Low Noise, High Voltage Amp
4	SGM8295-4	4.5	2	9	8	28	0.25	0.4	1000	3.6 ~ 36	1.5	130	140	Output	SOIC-14	9MHz, Low Noise, High Voltage Amp
2	SGM8608-2	30	0.031	11	6.6	50	1.7	0.9	10	2.1 ~ 5.5	1.1	120	82	Yes	SOIC-8,MSOP-8,TSSOP-8,UTDFN-2×2-8BL	11MHz, RRIO
1	SGM8621	17.5		3	1.7	38	3	2.7	1	2 ~ 5.5	0.27	90	71	Yes	SOT-23-5,SOIC-8,SC70-5	3MHz, 1.7V/μs, Low Noise, RRIO
2	SGM8622	17.5		3	1.7	38	3	2.7	1	2 ~ 5.5	0.21	90	71	Yes	SOIC-8,MSOP-8	3MHz, 1.7V/μs, Low Noise, RRIO
1	SGM8623	17.5		3	1.7	38	3	2.7	1	2 ~ 5.5	0.27	90	71	Yes	SOT-23-6,SOIC-8	3MHz, 1.7V/μs, Low Noise, Single Amp with Shutdown, RRIO
4	SGM8624	17.5		3	1.7	38	3	2.7	1	2 ~ 5.5	0.21	90	71	Yes	SOIC-14,TSSOP-14	3MHz, 1.7V/μs, Low Noise, RRIO
1	SGM8631	13		6	3.7	40	3.5	2.4	1	2 ~ 5.5	0.57	86	76	Yes	SOT-23-5,SOIC-8,SC70-5	6MHz, 3.7V/μs, Low Noise, RRIO
2	SGM8632	13		6	3.7	40	3.5	2.4	1	2 ~ 5.5	0.48	86	76	Yes	MSOP-8,SOIC-8	6MHz, 3.7V/μs, Low Noise, RRIO
1	SGM8633	13		6	3.7	40	3.5	2.4	1	2 ~ 5.5	0.57	86	76	Yes	SOT-23-6,SOIC-8	6MHz, 3.7V/μs, Low Noise, Single Amp with Shutdown, RRIO
4	SGM8634	12	0.003	6	3.7	49	3.5	2.4	1	2.5 ~ 5.5	0.47	97	83	Yes	SOIC-14,TSSOP-14	6MHz, 3.7V/μs, Low Noise, RRIO
1	SGM8651	8.7 ^{††}		50	66	100	8	4.5	6	2.5 ~ 5.5	2.3	80	80	Output	SOT-23-5,SOIC-8	50MHz, 66V/μs, Low Noise, Rail-to-Rail Output
2	SGM8652	8.7 ^{††}		50	66	100	8	4.5	6	2.5 ~ 5.5	2.3	80	80	Output	SOIC-8,MSOP-8	50MHz, 66V/μs, Low Noise, Rail-to-Rail Output
1	SGM8653	8.7 ^{††}		50	66	100	8	4.5	6	2.5 ~ 5.5	2.3	80	80	Output	SOT-23-6,SOIC-8	50MHz, 66V/μs, Low Noise, Single Amp with Shutdown, Rail-to-Rail Output
4	SGM8654	8.7 ^{††}		50	66	100	8	4.5	6	2.5 ~ 5.5	2.3	80	80	Output	SOIC-14,TSSOP-14	50MHz, 66V/μs, Low Noise, Rail-to-Rail Output
2	SGM8655	8.7 ^{††}		50	66	100	8	4.5	6	2.5 ~ 5.5	2.3	80	80	Output	MSOP-10	50MHz, 66V/μs, Low Noise, Dual Amps with Shutdown, Rail-to-Rail Output

Notes: [†] Typical Values @ 25°C

^{††} Typical Values @ 1MHz

^{†††} Typical Values @ 100kHz

Low Noise Operational Amplifiers

Amplifiers per Package	Part Number	E _{NOISE} Typ @1kHz (nV/ $\sqrt{\text{Hz}}$)	I _{NOISE} Typ @1kHz (pA/ $\sqrt{\text{Hz}}$)	GBP Typ (MHz)	Slew Rate Typ (V/ μs)	I _{OUT} Min @25°C (mA)	V _{OS} Max @25°C (mV)	TC of V _{OS} Typ ($\mu\text{V}/^\circ\text{C}$)	I _B Typ (pA)	V _{CC} (V)	I _{O/Amp} Typ (mA)	A _{vo} Typ (dB)	CMRR Typ (dB)	Rail-to-Rail I/O	Package	Features
1	SGM8967-1	18		27	30	48	0.24	1.5	3	2.1 ~ 5.5	2.7	128	105	Yes	SOT-23-5,SOIC-8	27MHz, High Precision, RRIO
2	SGM8967-2	18		27	30	48	0.24	1.5	3	2.1 ~ 5.5	2.7	128	105	Yes	SOIC-8,MSOP-8	27MHz, High Precision, RRIO
1	SGM8967-3	18		27	30	48	0.24	1.5	3	2.1 ~ 5.5	2.7	128	105	Yes	SOT-23-6	27MHz, High Precision, RRIO
4	SGM8967-4	18		27	30	48	0.24	1.5	3	2.1 ~ 5.5	2.7	128	105	Yes	SOIC-14,TSSOP-14	27MHz, High Precision, RRIO
1	SGM8968-1	18		10	20	31	0.24	1	6	1.8 ~ 5.5	1.6	128	95	Yes	SOT-23-5,SOIC-8	10MHz, High Precision, RRIO
2	SGM8968-2	18		10	20	31	0.24	1	6	1.8 ~ 5.5	1.6	128	95	Yes	SOIC-8,MSOP-8	10MHz, High Precision, RRIO
4	SGM8968-4	18		10	20	31	0.24	1	6	1.8 ~ 5.5	1.6	128	95	Yes	SOIC-14,TSSOP-14	10MHz, High Precision, RRIO
1	SGM8969-1	20		50	20	30	0.24	1	6	1.8 ~ 5.5	1.1	127	102	Yes	SOT-23-5	50MHz, High Precision, RRIO
2	SGM8969-2	20		50	20	30	0.24	1	6	1.8 ~ 5.5	1.1	127	102	Yes	SOIC-8,TDFN-3x3-8L	50MHz, High Precision, RRIO

Amplifiers

Current Sense Amplifiers

Amplifiers per Package	Part Number	V _{CC} (V)	Input Common Mode Voltage Range (V)	V _{OS} Max @25°C (mV)	TC of V _{OS} Typ ($\mu\text{V}/^\circ\text{C}$)	Gain Error A _{vo} Typ (dB)	CMRR Typ (dB)	GBP Typ (MHz)	Slew Rate Typ (V/ μs)	Package	Features	
1	SGM8193A0	1.6 ~ 28	1.6 ~ 28	0.06		0.6	124	0.28 @-3dB		SOT-23-5,WLCSP-1x1-4B	Tiny Packages, Nano-Power, Precision Current-Sense Amplifier	
1	SGM8193A1	1.6 ~ 28	1.6 ~ 28	0.06		0.6	124	0.22 @-3dB		SOT-23-5,WLCSP-1x1-4B	Tiny Packages, Nano-Power, Precision Current-Sense Amplifier	
1	SGM8193A2	1.6 ~ 28	1.6 ~ 28	0.06		0.6	124	0.16 @-3dB		SOT-23-5,WLCSP-1x1-4B	Tiny Packages, Nano-Power, Precision Current-Sense Amplifier	
1	SGM8193A3	1.6 ~ 28	1.6 ~ 28	0.06		0.6	124	0.125 @-3dB		SOT-23-5,WLCSP-1x1-4B	Tiny Packages, Nano-Power, Precision Current-Sense Amplifier	
1	SGM8197A0	2.7 ~ 28	-24 ~ 105	4		1.2	102	2 @-3dB	1.7	SOIC-8,MSOP-8	High-side Current-Sense Amplifier with Open-Drain Comparator and Reference	
1	SGM8197A1	2.7 ~ 28	-24 ~ 105	4		1.2	102	1.2 @-3dB	1.7	SOIC-8,MSOP-8	High-side Current-Sense Amplifier with Open-Drain Comparator and Reference	
1	SGM8197A2	2.7 ~ 28	-24 ~ 105	4		1.2	102	0.8 @-3dB	1.7	SOIC-8,MSOP-8	High-side Current-Sense Amplifier with Open-Drain Comparator and Reference	
1	SGM8197A3	2.7 ~ 28	-24 ~ 105	4		1.2	102	0.5 @-3dB	1.7	SOIC-8,MSOP-8	High-side Current-Sense Amplifier with Open-Drain Comparator and Reference	
1	SGM8198	2.7 ~ 36	2.7 ~ 36	0.55	1		140	0.48 @-3dB [†]		SOT-23-5	High Voltage, High-side Measurement Current Shunt Monitor	
1	SGM8199A0	2.7 ~ 26	-0.1 ~ 26	0.6	1	0.7	97	0.074 @-3dB	0.42	SC70-6	Voltage Output, High- or Low-side Measurement, Bi-Directional Current Shunt Monitor	
1	SGM8199A1	2.7 ~ 26	-0.1 ~ 26	0.35	1	0.4	104	0.08 @-3dB	0.35	SC70-6	Voltage Output, High- or Low-side Measurement, Bi-Directional Current Shunt Monitor	
1	SGM8199A2	2.7 ~ 26	-0.1 ~ 26	0.25	1	0.4	108	0.068 @-3dB	0.3	SC70-6	Voltage Output, High- or Low-side Measurement, Bi-Directional Current Shunt Monitor	
1	SGM8199L1	2.7 ~ 26	-0.1 ~ 26	0.35	1	0.4	104	0.074 @-3dB	0.35	SC70-6,UTQFN-1.8x1.4-10L	Voltage Output, High- or Low-side Measurement, Bi-Directional Current Shunt Monitor	
1	SGM8199L2	2.7 ~ 26	-0.1 ~ 26	0.33	1	0.4	110	0.068 @-3dB	0.3	SC70-6,UTQFN-1.8x1.4-10L	Voltage Output, High- or Low-side Measurement, Bi-Directional Current Shunt Monitor	
1	SGM8477-1B	1.8 ~ 5.5	-Vs ~ Vs	0.01	0.02	0.2	108	0.15 @-3dB	0.4	SC70-6,UTQFN-1.8x1.4-10L	1.8V to 5.5V, Low Noise, Zero-Drift, Single Amp	
1	SGM8477-1G	1.8 ~ 5.5	-Vs ~ Vs	0.01	0.02	0.3	108	0.032 @-3dB	0.15	SC70-6,UTQFN-1.8x1.4-10L	1.8V to 5.5V, Low Noise, Zero-Drift, Single Amp	
1	SGM8478-1C	4.5 ~ 36	-Vs-0.1 ~ Vs+1	0.016	0.14	0.1	106	0.23 @-3dB	2.1	SOIC-8,TDFN-3x3-8L	High Voltage, High Precision, Low Noise, Over the Rail Difference Amp	
1	SGM8606	1.8 ~ 5.5	-Vs-0.1 ~ Vs+0.1	0.05	0.08	121		100	0.35	0.18	TDFN-3x3-10L	Current Sensing AFE

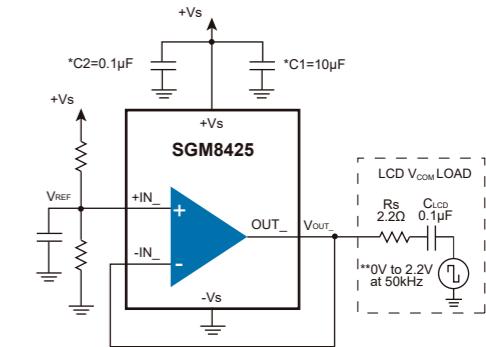
Note: [†] Typical Values @ G = 10

Application-Specific Operational Amplifiers

The Application-Specific Operational Amplifier family provides the improved V_{COM} buffer IC featuring up to 3A transient output peak current with single/dual/quad amplifiers per package. Industry standard crossover distortion-free operational amplifiers are extremely suitable for data acquisition systems requiring high linearity. Dual channel OPAs with positive offset in tiny DFN package make them best choice for portable applications.

Amplifiers per Package	Part Number	Transient Output Peak Current	Settling Time to 0.1%	GBP Typ	Slew Rate Typ	I_{OUT} Typ	V_{OS} Max @25°C	TC of V_{OS}		I_B Typ (pA)	V_{CC} (V)	I_Q/Amp Typ (µA)	A_{VO} Typ (dB)	CMRR Typ (dB)	Rail-to-Rail I/O	Package	Features
		(mA)	(µs)	(MHz)	(V/µs)	(mA)	(mV)	(µV/°C)	(pA)								
4	LM2902			1.1	0.35	18	5.8		10	3 ~ 32	215		111	118	Output	SOIC-14	Low Power, Quad Amps
2	LM2904			1.1	0.35	18	5.8		10	3 ~ 32	220		111	118	Output	SOIC-8,MSOP-8,TSSOP-8	Low Power, Dual Amps
1	LM321			1.1	0.35	18	5.8		10	3 ~ 32	240		111	118	Output	SOT-23-5	Low Power, Single Amp
4	LM324			1.1	0.35	18	5.8		10	3 ~ 32	215		111	118	Output	SOIC-14	Low Power, Quad Amps
2	LM358			1.1	0.35	18	5.8		10	3 ~ 32	220		111	118	Output	SOIC-8,MSOP-8	Low Power, Dual Amps
2	SGM2904			2	0.6	40	4	2	20000	3.3 ~ 26	1000		100	80	No	SOIC-8,MSOP-8	High Voltage, Low Bias Current
1	SGM4822		2.6 @-3dB	4.8	100					3.3 ~ 5.5	660		20		Output	SOT-23-8	Tiny, Low-Cost, Single Input, Fixed-Gain Microphone Amplifier with Integrated Bias
1	SGM4823		2.6 @-3dB	4.8	100					3.3 ~ 5.5	660		20		Output	MSOP-10	Tiny, Low-Cost, Dual Input, Fixed-Gain Microphone Amplifier with Integrated Bias
1	SGM4825		2.6 @-3dB	4.8	100					2.7 ~ 5.5	660		20		Output	SOT-23-6	Tiny, Low-Cost, Single Input, Fixed-Gain Microphone Amplifier with Integrated Bias
1	SGM4826		2.6 @-3dB	4.8	100					2.7 ~ 5.5	660		20		Output	SOT-23-8	Tiny, Low-Cost, Dual Input, Fixed-Gain Microphone Amplifier with Integrated Bias
1	SGM620		0.14 @-3dB ^{††}	1.2	24	0.15	0.2	15000	4.6 ~ 36	1300			105		Output	SOIC-8	High Voltage, Low Noise, Rail-to-Rail Output Instrumentation Amp
1	SGM620A		0.14 @-3dB ^{††}	1.5	24	0.01 [†]	0.2	8000	4.6 ~ 36	1300			120		Output	SOIC-8	High Voltage, Low Noise, Rail-to-Rail Output Instrumentation Amp
1	SGM621		0.14 @-3dB ^{††}	1.2	24	0.15	0.2	15000	4.6 ~ 36	1300			105		Output	SOIC-8,MSOP-8	High Voltage, Low Noise, Rail-to-Rail Output Instrumentation Amp
1	SGM621A		0.14 @-3dB ^{††}	1.2	24	0.08	0.2	15000	4.6 ~ 36	1300			120		Output	SOIC-8,MSOP-8,TDFN-3x3-8L	High Voltage, Low Noise, Rail-to-Rail Output Instrumentation Amp
2	SGM8139		0.011		50	1.6				1.4 ~ 5.5	6.5		92	78	Yes	SOIC-16,TQFN-2.5x2.5-16L	Low Power, Low Voltage PIR and Vibration Sensor AFE
2	SGM8140		0.005	0.0016	24	2.5	2	1	1.4 ~ 5.5	1.1	93	83	Yes			TQFN-4x4-16L	Low Power, Low Voltage PIR and Vibration Sensor AFE
1	SGM8416-1	800	0.16	25	65	300	10	3.6	1000	4.5 ~ 26.5	2600		120	72	Yes	TDFN-3x3-8L	0.8A Peak Output Current, 65V/µs, 26.5V _{CC} , Single V_{COM} Buffer
2	SGM8416-2	800	0.16	25	65	300	10	3.6	1000	4.5 ~ 26.5	2600		120	72	Yes	MSOP-8 (Exposed Pad)	0.8A Peak Output Current, 65V/µs, 26.5V _{CC} , Dual V_{COM} Buffer
4	SGM8416-4	800	0.16	25	65	300	10	3.6	1000	4.5 ~ 26.5	2600		120	72	Yes	TSSOP-14 (Exposed Pad)	0.8A Peak Output Current, 65V/µs, 26.5V _{CC} , Quad V_{COM} Buffer
1	SGM8417-1	1500	0.14	28	65	400	10	3.6	1000	4.5 ~ 26.5	3300		120	72	Yes	TDFN-3x3-8L	1.5A Peak Output Current, 65V/µs, 26.5V _{CC} , Single V_{COM} Buffer
2	SGM8417-2	1500	0.14	28	65	400	10	3.6	1000	4.5 ~ 26.5	3300		120	72	Yes	MSOP-8 (Exposed Pad)	1.5A Peak Output Current, 65V/µs, 26.5V _{CC} , Dual V_{COM} Buffer
4	SGM8417-4	1500	0.14	28	65	400	10	3.6	1000	4.5 ~ 26.5	3300		120	72	Yes	TSSOP-14 (Exposed Pad)	1.5A Peak Output Current, 65V/µs, 26.5V _{CC} , Quad V_{COM} Buffer
1	SGM8418-1	3000	0.14	28	65	400	10	3.6	1000	4.5 ~ 26.5	4800		120	72	Yes	TDFN-3x3-8L	3A Peak Output Current, 65V/µs, 26.5V _{CC} , Single V_{COM} Buffer
2	SGM8418-2	3000	0.14	28	65	400	10	3.6	1000	4.5 ~ 26.5	4800		120	72	Yes	MSOP-8 (Exposed Pad)	3A Peak Output Current, 65V/µs, 26.5V _{CC} , Dual V_{COM} Buffer
4	SGM8418-4	3000	0.14	28	65	400	10	3.6	1000	4.5 ~ 26.5	4800		120	72	Yes	TSSOP-14 (Exposed Pad)	3A Peak Output Current, 65V/µs, 26.5V _{CC} , Quad V_{COM} Buffer
2	SGM8422		2.4	2	80	6			10	4.5 ~ 30	720		115	81	Yes	SOIC-8,MSOP-8	Low Power, 30V _{CC} , Dual V_{COM} Buffer for Small Panel
4	SGM8424		2.4	2	80	6			10	4.5 ~ 30	720		115	81	Yes	SOIC-14,TSSOP-14	Low Power, 30V _{CC} , Quad V_{COM} Buffer for Small Panel
1	SGM8425	336	0.34	9	14	80	6.5	4.9	4.5 ~ 30	1600		92	71	Yes	SOT-23-5,SOIC-8,MSOP-8	336mA Peak Output Current, 14V/µs, 30V _{CC} , Single V_{COM} Buffer	
2	SGM8426	336	0.34	9	14	80	6.5	4.9	4.5 ~ 30	1600		92	71	Yes	SOIC-8,MSOP-8	336mA Peak Output Current, 14V/µs, 30V _{CC} , Dual V_{COM} Buffer	
4	SGM8428	336	0.34	9	14	80	6.5	4.9	4.5 ~ 30	1600		92	71	Yes	SOIC-14,TSSOP-14	336mA Peak Output Current, 14V/µs, 30V _{CC} , Quad V_{COM} Buffer	
4	SGM8429C-4		1.1	0.35	18	6			10	3 ~ 32	215		111	100	Output	TQFN-3x3-16L	Low Power, Quad Amps

Notes: † Typical Values @ 25°C
 †† Typical Values @ G = 100



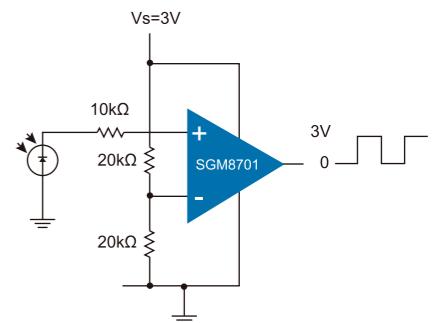
Application-Specific Operational Amplifiers

Amplifiers per Package	Part Number	Transient Output Peak Current (mA)	Settling Time to 0.1% (μs)	GBP Typ (MHz)	Slew Rate Typ (V/μs)	I_{OUT} Typ (mA)	V_{OS} Max @25°C (mV)	TC of V_{OS} Typ (μV/°C)	I_B Typ (pA)	V_{CC} (V)	I_Q/Amp Typ (μA)	CMRR Typ (dB)	Rail-to-Rail I/O	Package	Features
2	SGM8480-2		0.7	7.5	6	85	0.025	0.2	500	4.5 ~ 18	2100	145	140	No	TSSOP-14 15V Single-Supply, Dual Amps with ±10V Output Range
2	SGM8600		0.21	11	8.5	63	4	8.7	1	2.1 ~ 5.5	1100	92	82	Yes	TDFN-2×2-8L,SOIC-8 Tiny Package, Positive Offset, Low Noise
1	SGM8601		0.21	11	8.5	63	4	8.7	1	2.1 ~ 5.5	1100	92	82	Yes	TDFN-2×2-8L Tiny Package, Low Noise
2	SGM8602		0.2	12	9	65	5.1	4.7	1	2.1 ~ 5.5	1100	92	75	Yes	SOT-23-8,TDFN-2×3-8L Tiny Package, Low Noise
1	SGM8603		0.21	11	8.5	64	4.9	2.7	1	2.1 ~ 5.5	1100	91	83	Yes	TDFN-2×2-6L Tiny Package, Low Noise
1	SGM8604-1	232		15	7	240	0.01	0.017	200	2.7 ~ 5.5	1200	145	120	Output	UTDFN-1.45×1-6L 15MHz, 7V/μs, High-Output-Drive, High Precision, Low Noise, Single Amp
2	SGM8604-2	232		15	7	240	0.01	0.017	200	2.7 ~ 5.5	1200	145	120	Output	TDFN-2×3-8AL 15MHz, 7V/μs, High-Output-Drive, High Precision, Low Noise, Dual Amps
1	SGM8604-3	232		15	7	240	0.01	0.017	200	2.7 ~ 5.5	1200	145	120	Output	UTDFN-1.45×1-6L 15MHz, 7V/μs, High-Output-Drive, High Precision, Low Noise, Single Amp with Shutdown
2	SGM8604-5	232		15	7	240	0.01	0.017	200	2.7 ~ 5.5	1200	145	120	Output	TDFN-3×3-10L 15MHz, 7V/μs, High-Output-Drive, High Precision, Low Noise, Dual Amps with Shutdown
1	SGM8605-1		0.21	12.5	8.5	78	4.5		2	2.1 ~ 5.5	1200	88	79	Yes	UTDFN-1.45×1-6L Ultra Tiny Package, Low Noise
1	SGM8941		2	1.5	0.8		0.9	3	3	1.8 ~ 5.5	120	90	90	Yes	SOT-23-5,SOIC-8 Crossover Distortion Free, 0.9mV V_{OS} , Low Bias Current
2	SGM8942		2	1.5	0.8		0.9	3	3	1.8 ~ 5.5	120	90	90	Yes	SOIC-8,MSOP-8 Crossover Distortion Free, 0.9mV V_{OS} , Low Bias Current

Amplifiers

Nano Power Comparators

The Nano Power Comparator family provides a typical power supply current as low as 300nA. They have the best-in-class power supply current versus propagation delay performance. The propagation delay is as low as 3μs with 100mV overdrive at 5V supply. The Nano Power Comparator family also provides different options featuring push-pull output stage, PFET/NFET open-drain output stage, latch enable, reference output and ultra small DFN packages.



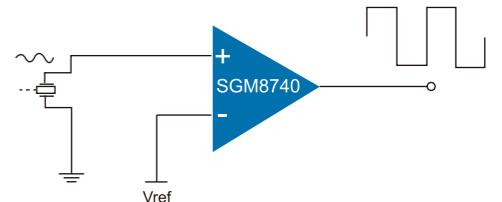
Comparators per Package	Part Number	I _Q /Comp Typ (nA)	Latch Enable	V _{CC} (V)	V _{OS} Max @25°C (mV)	t _{PD} , H to L @V _{CC} = 5V (μs)	t _{PD} , L to H @V _{CC} = 5V (μs)	Logic Output	Reference Output (V)	Rise Time @V _{CC} = 5V (ns)	Fall Time @V _{CC} = 5V (ns)	Package	Features
1	SGM8701	350	No	1.4 ~ 5.5	3	6	33	Push-Pull	NA	85	60	SOT-23-5,SC70-5	Ultra Low Power, Push-Pull, Small Package
1	SGM8702	350	No	1.4 ~ 5.5	3	6	33	Open-Drain (PFET)	NA	85	NA	SOT-23-5,SC70-5	Ultra Low Power, PFET Open-Drain, Small Package
1	SGM8703	350	Yes	1.4 ~ 5.5	3	6	33	Push-Pull	NA	85	60	SOT-23-6	Latch Enable, Ultra Low Power, Push-Pull, Small Package
1	SGM8704	350	Yes	1.4 ~ 5.5	3	6	33	Push-Pull & Invert	NA	85	60	SOIC-8,MSOP-8	Latch Enable, Ultra Low Power, Push-Pull and Inverter
2	SGM8705	350	No	1.4 ~ 5.5	3	6	33	Push-Pull	NA	85	60	SOIC-8,MSOP-8	Ultra Low Power, Push-Pull
1	SGM8706	2300	Yes	1.8 ~ 5.5	3	5.6	30	Push-Pull	1.2	40	30	SOIC-8,SOT-23-8,SOT-23-6	Internal Reference, Latch Enable, Ultra Low Power, Push-Pull
1	SGM8707	350	No	1.4 ~ 5.5	3	6	33	Push-Pull	NA	85	60	SOT-23-5,SC70-5	Ultra Low Power, Push-Pull, Small Package
1	SGM8708	2300	Yes	1.8 ~ 5.5	3	5.6	30	Push-Pull & Invert	1.2	40	30	SOT-23-8,SOIC-8	Internal Reference, Latch Enable, Ultra Low Power, Push-Pull and Inverter
1	SGM8709	350	No	1.4 ~ 5.5	3	5		Open-Drain (NFET)	NA	NA	36	SOT-23-5,SC70-5	Ultra Low Power, NFET Open-Drain, Small Package
1	SGM8710	2300	Yes	1.8 ~ 5.5	3	5.6		Open-Drain (NFET)	1.2	NA	30	SOT-23-8,SOT-23-6	Internal Reference, Latch Enable, Ultra Low Power, NFET Open-Drain
1	SGM8711	2300	No	1.8 ~ 5.5	3	5.6	30	Push-Pull	1.2	40	30	UTDFN-1.6×1.6-6L	Tiny Package, Internal Reference, Ultra Low Power, Push-Pull
2	SGM8712	350	No	1.4 ~ 5.5	3	6	33	Push-Pull	NA	85	60	MSOP-8	Ultra Low Power, Push-Pull
1	SGM8713A-1	300	No	1.6 ~ 5.5	10			Push-Pull		7	15	XTDFN-0.8×0.8-4L	Small Size, Nano Power, Push-Pull
1	SGM8713B-1	300	No	1.6 ~ 5.5	10	3	5	Open-Drain (NFET)			15	XTDFN-0.8×0.8-4L	Small Size, Nano Power, Open-Drain
1	SGM8714A-1	300	No	1.6 ~ 5.5	10			Push-Pull		6	6	XTDFN-1×1-6L	Small Size, Nano Power, Push-Pull
1	SGM8714B-1	300	No	1.6 ~ 5.5	10	4	6	Open-Drain (NFET)			6	XTDFN-1×1-6L	Small Size, Nano Power, Open-Drain

High Speed Comparators

The High Speed Comparator family provides the smallest propagation delay as low as 6ns, while input common mode range of each device extends beyond both power supply rails. The output pulls to within 0.1V of either supply rail without external pull-up circuitry, making the devices ideal for interface with both CMOS and TTL logics. All input and output pins can tolerate a continuous short-circuit fault condition to either rail. Internal hysteresis ensures a clean output switching, even with slow-moving input signals.

Comparators per Package	Part Number	t _{PD} , H to L @V _{CC} = 5V (ns)	t _{PD} , L to H @V _{CC} = 5V (ns)	Rise Time @V _{CC} = 5V (ns)	Fall Time @V _{CC} = 5V (ns)	V _{OS} Max @25°C (mV)	V _{CC} (V)	Input Common Mode Voltage Range (V)	I _Q /Comp Typ (μA)	Logic Output	Rail-to-Rail Output	Package	Features
1	SGM8740	20 [†]	25 [†]	8 [†]	5 [†]	5	2.7 ~ 5.5	-0.1 ~ Vs+0.1	155	Push-Pull	Yes	SOT-23-5,SC70-5	High Speed, Small Package, Single, Rail-to-Rail Input
1	SGM8741	20 [†]	25 [†]	8 [†]	5 [†]	5	2.7 ~ 5.5	-0.1 ~ Vs+0.1	155	Push-Pull	Yes	SOT-23-5,SC70-5	High Speed, Small Package, Single, Rail-to-Rail Input
2	SGM8742	20 [†]	25 [†]	8 [†]	5 [†]	5	2.7 ~ 5.5	-0.1 ~ Vs+0.1	155	Push-Pull	Yes	SOIC-8,MSOP-8	High Speed, Small Package, Dual, Rail-to-Rail Input
1	SGM8743	6 [†]	6 [†]	8 [†]	6 [†]	4.9	2.7 ~ 5.5	-0.1 ~ Vs+0.1	1300	Push-Pull	Yes	SOT-23-5,SC70-5	Ultra High Speed, Small Package, Single, Rail-to-Rail Input
1	SGM8744	6 [†]	6 [†]	8 [†]	6 [†]	4.9	2.7 ~ 5.5	-0.1 ~ Vs+0.1	1300	Push-Pull	Yes	SOT-23-5,SC70-5	Ultra High Speed, Small Package, Single, Rail-to-Rail Input
2	SGM8745	6 [†]	6 [†]	8 [†]	6 [†]	4.9	2.7 ~ 5.5	-0.1 ~ Vs+0.1	1300	Push-Pull	Yes	SOIC-8,MSOP-8	Ultra High Speed, Small Package, Dual, Rail-to-Rail Input
1	SGM8746	95 [†]	120 [†]	8 [†]	6 [†]	4.9	2.7 ~ 5.5	-0.1 ~ Vs+0.1	22	Push-Pull	Yes	SOT-23-5,SC70-5	Low Power, Small Package, Single, Rail-to-Rail Input
1	SGM8747	95 [†]	120 [†]	8 [†]	6 [†]	4.9	2.7 ~ 5.5	-0.1 ~ Vs+0.1	22	Push-Pull	Yes	SOT-23-5,SC70-5	Low Power, Small Package, Single, Rail-to-Rail Input
2	SGM8748	95 [†]	120 [†]	8 [†]	6 [†]	4.9	2.7 ~ 5.5	-0.1 ~ Vs+0.1	22	Push-Pull	Yes	SOIC-8,MSOP-8	Low Power, Small Package, Dual, Rail-to-Rail Input
1	SGM8749	97 [†]	NA	NA	6	5	2.7 ~ 5.5	-0.1 ~ Vs+0.1	22	Open-Drain	No	SOT-23-5,SC70-5	Low Power, Small Package, Single, Open-Drain Output
2	SGM8750	110	NA	NA	8	5.5	2.7 ~ 5.5	-0.1 ~ Vs+0.1	25	Open-Drain	No	SOIC-8,MSOP-8	Low Power, Small Package, Dual, Open-Drain Output
1	SGM8751	30 [†]	22 [†]	11 [†]	8 [†]	5	2.7 ~ 5.5	-0.1 ~ Vs-1.2	150	Push-Pull	Yes	SOT-23-5	Low Power, Small Package, Single, Rail-to-Rail Output
1	SGM8752-1	6.5	1.2	0.9	6.5	2.7 ~ 5.5	-Vs-0.2 ~ Vs+0.2	1800	Push-Pull	Yes	SOT-23-5	High Speed, Single, Push-Pull Output	
2	SGM8752-2	6.5	1.2	0.9	6.5	2.7 ~ 5.5	-Vs-0.2 ~ Vs+0.2	1800	Push-Pull	Yes	SOT-23-8,SOIC-8	High Speed, Dual, Push-Pull Output	
1	SGM8752-3	6.5	1.2	0.9	6.5	2.7 ~ 5.5	-Vs-0.2 ~ Vs+0.2	1800	Push-Pull	Yes	SOT-23-6	High Speed, Single Comparator with Shutdown, Push-Pull Output	
2	SGM8770	45	NA	NA	15	2.4	2.8 ~ 36	-Vs ~ Vs-1.5	155	Open-Drain	No	SOIC-8,TDFN-3x3-8L	High Voltage, High Precision, Dual, Open-Drain Output
1	SGM8771	50	NA	NA	12	2.4	2.8 ~ 36	-Vs ~ Vs-1.5	180	Open-Drain	No	SOIC-8,TDFN-3x3-8L	High Voltage, High Precision, Single, Open-Drain Output
2	SGM8772	50	60	12	12	4	2.8 ~ 36	-Vs ~ Vs-1.5	210	Push-Pull	Yes	MSOP-10	High Voltage, High Precision, Dual, Push-Pull Output
2	SGM8773	60	60	20	20	2.4	2.8 ~ 36	-Vs ~ Vs-1.5	165	Push-Pull	Yes	SOIC-8,TDFN-3x3-8L	High Voltage, High Precision, Dual, Push-Pull Output
1	SGM8774	50	NA	NA	20	2.8	2.8 ~ 36	-Vs ~ Vs-1.5	240	Open-Drain	No	SOT-23-5	High Voltage, High Precision, Single, Open-Drain Output

Note: [†] Typical Values @ V_{CC} = 3V



Digital-to-Analog Converters

This SGM534X DAC family is designed for general purpose multi-channel high precision voltage output application, such as system bias generation, gain and offset control, positioning and control, etc.

Part Number	Resolution (Bits)	Update Rate (SPS)	Output Voltage			Reference	V _{DD} (V)	INL (LSB)	DNL (LSB)	Offset Error (mV)	Gain Error (% of FSR)	Gain Drift (ppm/°C)	Output Settling Time (μs)	Operating I _Q (μA)	Power-Down I _Q (μA)	Operating Temperature Range (°C)			Package	Features
			Output Channels	Range (V)																
SGM5347-8	8	90k	8	0 ~ V _{REF}	External	2.8 ~ 5.5	0.2	0.02	3	0.1	2	7	500	0.6	-40 to +125	SOIC-16,TSSOP-16	8 Channels, 8-Bit DAC with Output Operational Amplifier			
SGM5347-10	10	83k	8	0 ~ V _{REF}	External	2.8 ~ 5.5	0.8	0.08	3	0.1	2	7	500	0.6	-40 to +125	SOIC-16,TSSOP-16	8 Channels, 10-Bit DAC with Output Operational Amplifier			
SGM5347-12	12	77k	8	0 ~ V _{REF}	External	2.8 ~ 5.5	3	0.3	3	0.1	2	7	500	0.6	-40 to +125	SOIC-16,TSSOP-16	8 Channels, 12-Bit DAC with Output Operational Amplifier			
SGM5348-8	8	200k	8	0 ~ V _{REF}	External	2.8 ~ 5.5	0.2	0.02	3	0.1	2	7	500	0.6	-40 to +125	TSSOP-16	8 Channels, 8-Bit DAC with Output Operational Amplifier			
SGM5348-10	10	200k	8	0 ~ V _{REF}	External	2.8 ~ 5.5	0.8	0.08	3	0.1	2	7	500	0.6	-40 to +125	TSSOP-16	8 Channels, 10-Bit DAC with Output Operational Amplifier			
SGM5348-12	12	140k	8	0 ~ V _{REF}	External	2.8 ~ 5.5	3	0.3	3	0.1	2	7	500	0.6	-40 to +125	TSSOP-16,TQFN-3×3-16L	8 Channels, 12-Bit DAC with Output Operational Amplifier			
SGM5349-16	16	140k	8	0 ~ V _{REF}	External	2.7 ~ 5.5	8	0.4	1.5	0.1	2	5	800	1	-40 to +125	TSSOP-16,TQFN-4×4-16L	8 Channels, 16-Bit, SPI Interface, Voltage-Output DAC			
SGM5351-16	16	140k	1	0 ~ V _{REF}	External	2.7 ~ 5.5	8	0.4	1.5	0.1	2	5	140	0.5	-40 to +125	MSOP-8	16-Bit, Ultra-Low Glitch, Voltage-Output DAC			
SGM5352-16	16	140k	4	0 ~ V _{REFH}	External	2.7 ~ 5.5	6	0.5	1.5	0.01	2	10	450	0.45	-40 to +125	WLCSP-1.64×1.62-16B,TSSOP-16	16-Bit, 4 Channels, Voltage-Output DAC			
SGM5353-16	16	700k	1	0 ~ V _{REF} - 1LSB	External	2.7 ~ 5.5	0.2	0.3	0.015	0.0012	0.04	1.5	78	—	-40 to +125	SOIC-8	16-Bit, Serial Input, Voltage-Output DAC			
SGM5355-16	16	140k	1	0 ~ V _{REF}	External	2.7 ~ 5.5	6	0.5	1.5	0.05	2	10	108	0.45	-40 to +125	WLCSP-0.82×1.22-6B,MSOP-8	16-Bit, I ² C Interface, Voltage-Output DAC			

Oversampling Analog-to-Digital Converters

This SGM58XXX sigma-delta ADC family is designed for high precision and low power consumption application, such as industrial temperature and pressure sensor conditioning, battery powered instruments and industrial field transducer.

Part Number	Resolution (Bits)	Data Rate (SPS)	Input Voltage			Reference	V _{DD} (V)	INL (ppmFS)	Offset Error (μV)	Gain Error (% of FSR)	Gain Drift (ppm/°C)	Programmable Gain	ENOB (Bits)	I _Q (μA)	I _Q (μA)	Operating Temperature Range (°C)			Package	Features
			Input Channels	Range (V)																
SGM58031	16	6.25 ~ 960	4	0 ~ V _{DD}	Internal/External	3 ~ 5.5	16	31	0.03	30	2/3 ~ 16	16	255	0.8	-40 to +125	MSOP-10,TDFN-3×3-10L	Ultra Small, Low-Power, 16-Bit, ADC with Internal Reference			
SGM58200	24	6.25 ~ 960	4	0 ~ V _{DD}	Internal/External	3 ~ 5.5	16	50	0.08	1	2/3 ~ 16	20.8	255	0.8	-40 to +125	MSOP-10,UTQFN-2×1.5-10L	Ultra Small, Low-Power, 24-Bit, ADC with Internal Reference			
SGM58600	24	2.5 ~ 60000	2	0 ~ AVDD	External	4.75 ~ 5.25	12	8	0.003	±1.5	1 ~ 128	24.8	2700	0.46	-40 to +125	SSOP-20,TQFN-3.5×3.5-20L	Ultra Low-Noise, 24-Bit ADC			
SGM58601	24	2.5 ~ 60000	8	0 ~ AVDD	External	4.75 ~ 5.25	12	8	0.003	±1.5	1 ~ 128	24.8	2700	0.46	-40 to +125	SSOP-28,TQFN-5×5-28L	Ultra Low-Noise, 24-Bit ADC			
SGM58602	24	2.5 ~ 60000	4	0 ~ AVDD	External	4.75 ~ 5.25	12	8	0.003	±1.5	1 ~ 128	24.8	2700	0.46	-40 to +125	TQFN-5×5-20L	Ultra Low-Noise, 24-Bit ADC			

SAR Analog-to-Digital Converters

Part Number	Resolution (Bits)	Sample Rate (SPS)	Input Channels	Input Voltage				THD (dB)	SNR (dB)	SINAD (dB)	SFDR (dB)	Offset Error (LSB)	Gain Error (LSB)	Operating		Power-Down	Operating Temperature Range (°C)	Package	Features	
				Range (V)	Reference	V _{DD} (V)	INL (LSB)							Programmable Gain	I _Q (μA)	I _Q (μA)				
SGM5200	12	1M	16	0 ~ V _{REF} /0 ~ 2V _{REF}	External	2.7 ~ 5.25	±0.8	±0.5	-79	71.4	70.7	81	±1.2	±0.8	No	1100	1.4	-40 to +125	TSSOP-38,TQFN-5x5-32L	12-Bit, 1MSPS, 16-Channel, Single-Ended, Serial Interface ADC
SGM5208-14	14	500k	8	0 ~ V _{REF}	External	2.7 ~ 5.5	±1.2	±0.6	-83	80	79	87			No	5200	42	-40 to +125	TSSOP-24,TQFN-4x4-24L	Low-Power, 14-Bit, 500kSPS, 8 Channels Unipolar Inputs ADC
SGM5209-14	14	500k	4	0 ~ V _{REF}	External	2.7 ~ 5.5	±1.2	±0.6	-83	80	79	87			No	5200	42	-40 to +125	TSSOP-24,TQFN-4x4-24L	Low-Power, 14-Bit, 500kSPS, 4 Channels Unipolar Inputs ADC
SGM51613H	16	800k	1	±10.24/±5.12/±2.56/0 ~ 10.24/0 ~ 5.12	Internal/External	4.75 ~ 5.25	±1.5/±2	-0.6/+0.75 & -0.7/+1.4	-102	90.5	90.3	104	±1 @ ±10.24V Range ±0.6 @ ±10.24V Range	Yes	7300	7.5	-40 to +125	TSSOP-16,TQFN-4x4-16L	16-Bit, High-Speed, Programmable Bipolar Input Ranges, SAR ADC	
SGM51622H	16	250k	1	±10.24/±5.12/±2.56/0 ~ 10.24/0 ~ 5.12	Internal/External	4.75 ~ 5.25	±1/±1.5	-0.55/+0.75 & -0.7/+1.2	-102	91	90.7	108	±1 @ ±10.24V Range ±0.6 @ ±10.24V Range	Yes	4800	7.5	-40 to +125	TSSOP-16,TQFN-4x4-16L	16-Bit, High-Speed, Programmable Bipolar Input Ranges, SAR ADC	
SGM51652H	16	500k	1	±10.24/±5.12/±2.56/0 ~ 10.24/0 ~ 5.12	Internal/External	4.75 ~ 5.25	±1/±1.5	-0.55/+0.75 & -0.7/+1.2	-102	91	90.7	108	±1 @ ±10.24V Range ±0.6 @ ±10.24V Range	Yes	6300	7.5	-40 to +125	TSSOP-16,TQFN-4x4-16L	16-Bit, High-Speed, Programmable Bipolar Input Ranges, SAR ADC	
SGM51652H4	16	500k	4	±10.24/±5.12/±2.56/0 ~ 10.24/0 ~ 5.12	Internal/External	4.75 ~ 5.25	±1.3	±0.6/+0.9	-99	89.5	89.1	101		Yes	11000	4	-40 to +125	TSSOP-38	16-Bit, 500kSPS, 4-Channel, Bipolar Input Ranges, SAR ADC	
SGM51652H8	16	500k	8	±10.24/±5.12/±2.56/0 ~ 10.24/0 ~ 5.12	Internal/External	4.75 ~ 5.25	±1.3	±0.6/+0.9	-99	89.5	89.1	101		Yes	14500	4	-40 to +125	TSSOP-38	16-Bit, 500kSPS, 8-Channel, Bipolar Input Ranges, SAR ADC	

Voltage References

The Voltage References (VREFs) are designed for use in precision signal chain and AC/DC applications. The high accuracy shunt VREFs provide precision in demanding system requirement for applications using high resolution data converters.

Part Number	V_o (V)	Reference Voltage	Initial Accuracy Max (%)	V_o Adj Min (V)	V_o Adj Max (V)	I_z for Regulation Min (μA)	Temperature Coefficient Max ($ppm/^{\circ}C$)	Operating Temperature Range ($^{\circ}C$)	I_{out}/I_{KA} Max (mA)	Package	Features
SGM431	2.5	Adj	0.5,1	2.5	36	400	60	-40 to +125	100	SOIC-8,SOT-23,SOT-89-3,SOT-23-5,SC70-6	Adjustable Precision Shunt Regulator
SGM431VB	1.24	Adj	0.5	1.24	18	65		-40 to +125	70	SOT-23	Adjustable Precision Shunt Regulator
SGM432	2.5	Adj	0.5,1	2.5	36	400	60	-40 to +125	100	SOT-89-3,SOT-23,SOT-23-5	Adjustable Precision Shunt Regulator
SGM4025	1.25,2.048,2.5,3.0,3.3,4.096	Fixed	0.1			230 [†]	30	-40 to +125	10	UTQFN-1.5x1.5-8L	30ppm/ $^{\circ}C$, 230 μA , CMOS Voltage Reference
SGM4027	2.048,2.5,3.0,3.3,4.096	Fixed	0.1			245 [†]	35	-40 to +125	10	SOT-23	35ppm/ $^{\circ}C$, 245 μA , CMOS Voltage Reference
SGM4029	2.5,3.0,4.096	Fixed	0.1			1450 [†]	10	-40 to +125	10	SOIC-8	Low Noise, Low Drift, Precision Voltage Reference
SGM4040B	2.5	Fixed	0.2			48	20 [†]	-40 to +125	15 [†]	SOT-23	Micro-Power, Precision Shunt Voltage Reference
SGM4051C	1.2,Adj	Fixed, Adj	0.5	1.206	10	45	20 [†]	-40 to +125	12 [†]	SC70-5,SOT-23	Micro-Power, Precision Shunt Voltage Reference

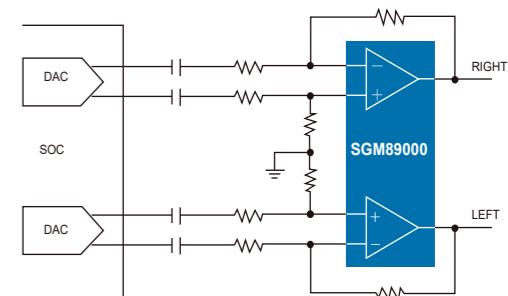
Note: [†] Typical Values @ 25°C

High Performance Audio Line Drivers

The Audio Line Driver family provides click-pop free stereo line drivers designed to allow the removal of the output DC-blocking capacitors for reduced component count and cost. The products are ideal for single supply electronics where size and cost are critical design parameters. The use of external gain resistors also allows the implementation of a 2nd order low pass filter to complement DAC's and SoC converters.

Part Number	Output Voltage		Output Voltage		Stereo or Mono	V _{CC} (V)	Differential Input	Shutdown Current			Package	Features
	R _L = 2.5kΩ	THD = 1%, V _{CC} = 5.0V	R _L = 2.5kΩ	THD = 1%, V _{CC} = 3.3V				Typ (μA)	Click-Pop Suppression			
SGM8902	3.05Vrms	2.05Vrms	Stereo	3.0 ~ 5.5	Yes	Active Low	130	Yes	TSSOP-14	600Ω Audio Line Driver		
SGM8903	3.05Vrms	2.05Vrms	Stereo	3.0 ~ 5.5	Yes	Active Low	130	Yes	TSSOP-14	600Ω Audio Line Driver with UVP Function		
SGM8904	3.05Vrms	2.05Vrms	Stereo	3.0 ~ 5.5	No	Active Low	130	Yes	MSOP-10	600Ω Audio Line Driver with UVP Function		
SGM8905	3.05Vrms	2.05Vrms	Stereo	3.0 ~ 5.5	No	Active Low	130	Yes	MSOP-10 (Exposed Pad)	600Ω Audio Line Driver with UVP Function		
SGM8909	3.05Vrms [†]	2.05Vrms [†]	Stereo	2.8 ~ 5.5	No	Active Low	3400	Yes	TSSOP-14	Audio Line Driver with Power On/Off Timing Control		
SGM89000		2.05Vrms	Stereo	3.0 ~ 3.6	Yes	Active Low	130	Yes	TSSOP-14	600Ω Audio Line Driver with UVP Function		
SGM89111	3.05Vrms	2.05Vrms	Stereo	3.0 ~ 5.5	Yes	Active Low		Yes	TSSOP-20	Audio Line Driver with Video Driver		
SGM89112	3.05Vrms	2.05Vrms	Stereo	3.0 ~ 5.5	No	Active Low		Yes	TSSOP-16	Audio Line Driver with Video Driver		

Note: [†] R_L = 600Ω



Headphone Drivers

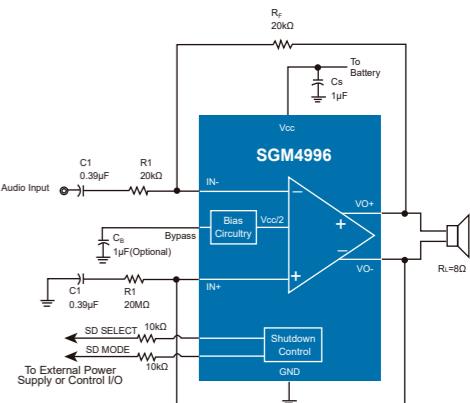
Part Number	Output Power		Output Power		Stereo or Mono	V _{CC} (V)	Differential Input	Shutdown Current			Package	Features
	R _L = 16Ω	THD ≤ 0.1%, V _{CC} = 5.0V	R _L = 32Ω	THD ≤ 0.1%, V _{CC} = 5.0V				Typ (μA)	Click-Pop Suppression			
SGM4809	158mW/CH	87mW/CH	Stereo	2.5 ~ 5.5	No	Active Low	0.6	Yes	MSOP-8	Headphone Driver with Active Low Shutdown Mode		
SGM4810	158mW/CH	87mW/CH	Stereo	2.5 ~ 5.5	No	Active High	0.5	Yes	MSOP-8	Headphone Driver with Active High Shutdown Mode		
SGM4812	132mW/CH	82mW/CH	Stereo	2.7 ~ 5.5	Yes	Active High	0.36	Yes	MSOP-10	Headphone Driver with Differential Input		
SGM4915	145mW/CH	85mW/CH	Stereo	2.5 ~ 5.5	No	Active Low	0.02	Yes	TDFN-2×2-8L	Headphone Driver with Small Package		
SGM4916		88mW/CH	Stereo	2.7 ~ 5.5	No	Active Low	0.01	Yes	TQFN-3×3-12L	OCL Headphone Driver		
SGM4917		80mW/CH	Stereo	2.7 ~ 5.5	Yes	Active Low	0.01	Yes	TQFN-3×3-16L	OCL Headphone Driver with Differential Input		
SGM4918		80mW/CH	Stereo	2.7 ~ 5.1	No	Active Low	0.01	Yes	TDFN-3×3-10L	OCL Headphone Driver		
SGM8910		55mW/CH	Stereo	2.8 ~ 12	Yes	Active Low	470	Yes	TSSOP-20,TQFN-4×4-20L	Audio Line Driver and Headphone Driver with Click-Pop Noise Cancellation		

Class AB Audio Power Amplifiers

The Class AB Audio Power Amplifier family provides single-ended or full-differential audio power amplifiers that are designed for portable communication device. With the advanced click-pop elimination circuitry, low-power shutdown mode and minimal count of external components, these products provide up to 1.3W of continuous average power to an 8Ω load with 1% distortion (THD+N) from a 5V battery voltage. All these features make these devices ideal for wireless handsets and other low voltage applications where minimal power consumption is a primary requirement.

Part Number	Output Power		Output Power		Stereo or Mono	V _{CC} (V)	Differential Input	Shutdown Current		Package	Features
	R _L = 8Ω THD ≤ 1%, V _{CC} = 3.6V	R _L = 8Ω THD ≤ 1%, V _{CC} = 5.0V						Typ (μA)			
SGM4863	0.7W/CH	1.3W/CH	Stereo	2.8 ~ 5.5	No	Active High		0.03	TSSOP-20 (Exposed Pad),TSSOP-16 (Exposed Pad),TQFN-3×3-20L,SOIC-16,DIP-16		ClassAB, BTL Output with Headphone Driver
SGM4865	0.7W/CH	1.3W/CH	Stereo	2.6 ~ 5.5	No	Active Low		0.03	TQFN-4×4-16L		ClassAB, BTL Output
SGM4871		1.2W/CH	Mono	2.5 ~ 5.5	No	Active High		0.07	SOIC-8,SOIC-8 (Exposed Pad)		ClassAB, BTL Output
SGM4888	0.7W/CH	1.3W/CH	Stereo	2.8 ~ 5.5	No	Active Low		0.02	TQFN-4×4-24L		ClassAB, BTL Output with 3D Enhance and Headphone Driver
SGM4891	0.6W/CH	1.2W/CH	Mono	2.5 ~ 5.5	No	Active Low		0.02	TDFN-2×2-8L		ClassAB, BTL Output
SGM4895	0.65W/CH	1.3W/CH	Mono	2.5 ~ 5.5	Yes	Active Low		0.01	TDFN-3×3-8L,MSOP-8 (Exposed Pad)		ClassAB, Fully Differential Input, BTL Output
SGM4995	0.65W/CH	1.3W/CH	Mono	2.5 ~ 5.5	Yes	Active Low		0.02	TDFN-2×2-8L		ClassAB, Fully Differential Input, BTL Output
SGM4996	0.65W/CH	1.3W/CH	Mono	2.5 ~ 5.5	Yes	Active Low		0.01	MSOP-8,MSOP-10,TDFN-3×3-10L		ClassAB, Fully Differential Input, BTL Output

Shutdown Control		
SD MODE	SD SELECT	Status
0	0	Shutdown
0	1	On
1	0	On
1	1	Shutdown



Class D Audio Power Amplifiers

Part Number	Architecture	Output Power		Stereo or Mono	V _{CC} (V)	Shutdown Logic	Shutdown Current		Package	Features
		Max (W)	THD+N				Typ (μA)			
SGM4700	Class-D	32	0.02	Stereo, Mono	5 ~ 20	Active Low	45	TSSOP-28 (Exposed Pad)		High-Power Stereo Class-D Audio Power Amplifier with Adjustable Power Limit and Automatic Level Control
SGM4703	Class-D	40	0.02	Stereo, Mono	5 ~ 26	Active Low	55	TSSOP-28 (Exposed Pad)		High-Power Stereo Class-D Audio Power Amplifier with Adjustable Power Limit and Automatic Level Control
ft2830	Class-G	4.5	0.05	Mono	3.2 ~ 4.6	Active Low	0.1	TSSOP-20		4.5W Dual-Pump™ Class-G Audio Power Amplifier
ft2910	Class-G	7.2	0.03	Mono	3 ~ 5.5	Active Low	<1	TSSOP-20		7.2W Boosted Class-G Audio Power Amplifier with Automatic Level Control & Battery Tracking AGC

High Performance Click-Pop Noise Suppressors

Channels per Package	Part Number	Type of Switch	V _{CC} (V)	Quiescent Current		Bandwidth @-3dB (MHz)	Digital I/O V _{INH} Min (V)	Digital I/O V _{INL} Max (V)	t _{ON} (ns)	t _{OFF} (ns)	Package	Features
				R _{ON}	t _{FLAT(ON)}							
2	SGM3714	1:2	2.7 ~ 9	375	0.18	220	1.6	0.4	210ms	720ms	TQFN-3×3-16L,WLCSP-1.62×1.23-12B	Excellent THD, Low R _{FLAT(ON)} , Click-Pop Noise Suppressor, Rail-to-Rail Negative Signal Passing
2	SGM4806	1:2	2.7 ~ 12	520	0.8	100	1.5	0.5	880000	190000	WLCSP-1.27×2.13-15B,SOIC-16,TQFN-4×4-16L	0.8Ω, High Voltage, Rail-to-Rail Negative Signal Passing, Mute Function
2	SGM4807	SPST	1.7 ~ 5	1.5	0.09		1.5	0.4	110	Adj	WLCSP-1.57×0.80-8B,MSOP-8,TDFN-2×2-8L	Power On/Off and Turn On/Off Timing Control
2	SGM4808	SPST	2.7 ~ 12	350	1.1	160	1.4	0.4	1200000	130000	TQFN-2.6×1.8-16L,SOIC-16	1.1Ω, High Voltage, Rail-to-Rail Negative Signal Passing

High Performance Video Buffers

The High Performance, High Reliability Video Buffer family provides industry's broadest products of driving Standard Definition and High Definition analog video signals, including 1080p. These comprehensive filtering solutions provide the designers flexibility to easily filter and drive various video signals, including high definition video, DVD and set-top box applications.

Part Number	Standard Definition Channels	High Definition Channels	1080p Support	Shut-down	V _{CC} (V)	Internal Gain (dB)	-3dB Bandwidth Typ (MHz)	-0.1dB Bandwidth Typ (MHz)	Rail-to-Rail Output	Internal Filter	Quiescent Current (mA)	Slew Rate Typ (V/μs)	Group Delay (ns)	Package	Features
SGM9111	1			No	3.0 ~ 5.5	6	8	6	Yes	Yes	6	35	28	SOIC-8,SC70-5	Single Channel, Standard Definition, Small Package
SGM9113	1			No	3.0 ~ 5.5	6	8	6	Yes	Yes	6	35	28	SOIC-8,SC70-5	Single Channel, Standard Definition, Small Package
SGM9114	1			Yes	3.0 ~ 5.5	6	8	6	Yes	Yes	6	35	28	SOT-23-6	Single Channel, Standard Definition, Small Package with Shutdown
SGM9115	3			No	3.3 ~ 5.5	6	9	5.5	Yes	Yes	21	44	31	SOIC-8	Triple Channels, Standard Definition
SGM9116		3		No	3.3 ~ 5.5	6	38.5	30.5	Yes	Yes	30	165	3	SOIC-8	Triple Channels, High Definition, 1080i Supported
SGM9117		3	Yes	No	2.5 ~ 5.5	6	200	92	Yes	No	27.5	300	3	SOIC-8	Triple Channels, High Definition, 1080p Supported
SGM9119	3			No	3.3 ~ 5.5	6	8	5.56	Yes	Yes	21	31.5	31.2	SOIC-8,MSOP-8	Triple Channels, Standard Definition
SGM9121	1			Yes	3.0 ~ 5.5	6	8	6	Yes	Yes	6	35	28	SC70-6	Single Channel, Standard Definition, Small Package with Shutdown
SGM9122	2			No	3.0 ~ 5.5	6	15	8.9	Yes	Yes	5.8			WSOP-8,TSSOP-8	Dual Channels, Standard Definition
SGM9124	4			No	3.3 ~ 5.5	6	8	5.9	Yes	Yes	30	35	28	MSOP-10	Quad Channels, Standard Definition
SGM9125	5			No	3.3 ~ 5.5	6	8	5.8	Yes	Yes	44	35	30.4	TSSOP-14	Five Channels, Standard Definition
SGM9126	6			No	3.3 ~ 5.5	6	8	5.7	Yes	Yes	44	35	30.5	TSSOP-14	Six Channels, Standard Definition
SGM9127	4			No	3.3 ~ 5.5	6	8	5.9	Yes	Yes	30	35	28	TSSOP-14	Quad Channels, Standard Definition
SGM9128YP	1	3		No	3.1 ~ 5.5	6	8.5/46	6.4/32	Yes	Yes	65	34/190	30/2.5	MSOP-10 (Exposed Pad)	Single SD Channel, Triple HD Channels, 1080i Supported, Exposed Pad
SGM9131		3		No	3.1 ~ 5.5	6	46	32	Yes	Yes	55	190	3.5	SOIC-8	Triple Channels, High Definition, 1080i Supported
SGM9132		3	Yes	No	3.1 ~ 5.5	6	98	78	Yes	Yes	75	340	5.3	SOIC-8 (Exposed Pad)	Triple Channels, High Definition, 1080p Supported
SGM9133	1	3	Yes	Yes	3.1 ~ 5.5	6	8.5/46/98	6.4/32/78	Yes	Yes	75	34/190/340	35/3.5/7	TSSOP-14	Single SD Channel, Triple HD Channels, 1080i/1080p Supported with Shutdown
SGM9134	1	3		No	3.1 ~ 5.5	6	8.5/46	6.4/32	Yes	Yes	58	34/190	35/3.5	TSSOP-14	Single SD Channel, Triple HD Channels, 1080i Supported
SGM9135	1	3	Yes	No	3.1 ~ 5.5	6	8.5/98	6.4/78	Yes	Yes	88	34/340	35/5.3	MSOP-10 (Exposed Pad)	Single SD Channel, Triple HD Channels, 1080p Supported
SGM9140	1			Yes	2.8 ~ 5.5	12/6	26/23	18/16	Yes	No	9			MSOP-8	Quad Channels, Standard Definition
SGM9141	1			No	4.5 ~ 13.2	6	25	17	Yes	No	9			SOIC-8,TSSOP-8	Triple Channels, Standard Definition
SGM9144	1			Yes	2.5 ~ 4.0	6/12	14/14		Yes	Yes	11.8	60		MSOP-8,TDFN-2x2-8L	Single SD Channel, Capless Output Coupling
SGM9146	1	3	Yes	No	3.1 ~ 5.5	6	8.5/46/98	6.4/32/78	Yes	Yes	9.5/58/78	34/190/340	35/3.5/5.3	TSSOP-14	Single SD Channel, Triple HD Channels, 1080i/1080p Supported
SGM9147	1			No	3.0 ~ 5.5	6	13	10	Yes	Yes	5	60	6	SC70-5	Single Channel, Standard Definition, Small Package
SGM9148	1			Yes	3.0 ~ 5.5	6	13	10	Yes	Yes	5	60	6	SOT-23-6	Single Channel, Standard Definition, Small Package with Shutdown
SGM9149	3			No	3.0 ~ 5.5	6	13	10.7	Yes	Yes	21	61	5.2	SOIC-8,MSOP-8	Triple Channels, Standard Definition
SGM9150	1	3	Yes	Yes	3.1 ~ 5.5	6	8.5/98	6.4/78	Yes	Yes	9.5/65	34/340	35/5.3	TSSOP-14	Single SD Channel, Triple HD Channels, 1080p Supported with Shutdown
SGM9152		1	Yes	Yes	3.1 ~ 5.5	6	79	64	Yes	Yes	15	300	3.5	MSOP-8	Single HD Channel, 1080p Supported
SGM9153		1	Yes	Yes	2.5 ~ 4.0	6	82	62	Yes	Yes	36	305	6.2	MSOP-10,TDFN-3x3-10L	Single HD Channel, 1080p Supported, Capless Output Coupling
SGM9154		1	Yes	Yes	3.1 ~ 5.5	6	79	64	Yes	Yes	15	300	3.5	TSSOP-8,SOT-23-6,SC70-5	Single HD Channel, 1080p Supported
SGM9155		1		Yes	3.1 ~ 5.5	6	40		Yes	Yes	12.5	175	3.8	SOT-23-6,SC70-5	Single HD Channel, 720p Supported
SGM9203	3	3	Yes	Yes	3.3 ~ 5.5	6/0	8/18/38/75	5.4/12/30/40	Yes	Yes	40	40/78/155/311 22/13.5/9.5/NA		TSSOP-14	Triple Channels, Selectable SD/PS/HD(1080i)/HD(1080p) with Shutdown
SGM9346	3	3		No	3.3 ~ 5.5	6	8/35	5.36/28.2	Yes	Yes	64.5	39.5/140	10.5/4.9	TSSOP-20	Triple SD Channels, Triple HD Channels

Analog Switches

The Analog Switch family provides industry's broadest analog switches covering the requirements of low on-resistance (as low as 75mΩ), high speed (up to 10000MHz), multi-channel selection and high voltage operation (up to 40V).

Channels per Package	Part Number	Type of Switch	V _{CC} (V)	Quiescent Current (μA)	R _{ON} (Ω)	Charge Injection (pC)	Bandwidth @-3dB (MHz)	Digital I/O V _{INH} Min (V)	Digital I/O V _{INL} Max (V)	t _{ON} (ns)	t _{OFF} (ns)	Package	Features
2	SGM2258	SPDT	1.8 ~ 5.5	<1	4.5	6	300	1.6	0.5	70	20	TQFN-2.1×1.6-10L	USB2.0 Full Speed Analog Switch
2	SGM2260	SPDT	1.8 ~ 4.3	<1	6	10	300	1.6	0.5	20	20	UTQFN-1.8×1.4-10L	6Ω, 300MHz, Low-Power Full-Speed USB (12Mbps) Switch
2	SGM2267	SPDT	1.8 ~ 4.2	<1	0.45	4	40	1.6	0.4	96	16	TQFN-2.1×1.6-10L	Ultra Low R _{ON} , Tiny Package, Dual SPDT
2	SGM2268	SPDT	1.8 ~ 4.2	<1	0.4	4	40	1.6	0.5	88	16	TQFN-1.8×1.4-10L	Ultra Low R _{ON} , Tiny Package, Dual SPDT
1	SGM3001	SPDT	1.8 ~ 5.5	<1	2.5	3	120	2.4	0.8	11	30	SC70-6	Small Package, 120MHz, Low R _{ON} , Single SPDT
2	SGM3002	SPDT	1.8 ~ 5.5	<1	2.5	3	120	2.4	0.8	11	8	MSOP-10	Small Package, 120MHz, Low R _{ON} , Dual SPDT
1	SGM3003	SPDT	1.8 ~ 5.5	<1	0.5	5	30	2.4	0.8	21	9	MSOP-8	Small Package, 30MHz, Ultra Low R _{ON} , Single SPDT
2	SGM3005	SPDT	1.8 ~ 5.5	<1	0.5	20	15	2.4	0.8	50	15	TDFN-3×3-10L, MSOP-10	Tiny Package, 15MHz, Ultra Low R _{ON} , Dual SPDT
2	SGM3005C	SPDT	1.8 ~ 5.5	<1	0.6	20	15	2.4	0.6	50	15	MSOP-10	15MHz, Ultra Low R _{ON} , Dual SPDT
1	SGM3157	SPDT	1.8 ~ 5.5	<5	6		300	1.8	0.4	20	15	SC70-6	300MHz, Small Package, Single SPDT
2	SGM3158	SPDT	1.8 ~ 5.5	<5	4.5		270	1.5	0.6	20	15	TDFN-3×1-12L	270MHz, Tiny Package, Dual SPDT
1	SGM3167	SPDT	1.8 ~ 5.5	<5	9		600	1.5	0.6	20	15	SC70-6	600MHz, Small Package, Single SPDT
4	SGM330A	SPDT	2.7 ~ 5.5	<20	12		500	2	0.6	25	13	SOIC-16,TSSOP-16,SSOP-16	Quad, SPDT Video Analog Switch
4	SGM331A	SPDT	5	<20	12		500	2	0.6	25	13	SOIC-16,TSSOP-16,SSOP-16	Quad, SPDT Video Analog Switch with 1.2V Self Bias
4	SGM3699	SPDT	1.8 ~ 4.35	<1	0.5	30	70	1.6	0.5	52	25	TQFN-3×3-16L	70MHz, Low Voltage, Low I _Q , Ultra Low R _{ON} , Quad SPDT
2	SGM3700	DPDT	2.5 ~ 5.5	<15	4	21	380	1.5	0.5	15	9	TQFN-3×3-16L	380MHz, Negative Signal Passing, Dual DPDT, Tiny Package
2	SGM3710	SPDT	2.7 ~ 12	300	1/11	600	160/130	1.4	0.4	200	100	TQFN-2.6×1.8-16L, SOIC-16	1Ω/11Ω, High Voltage, Rail-to-Rail Negative Signal Passing
2	SGM3711	SPDT	2.7 ~ 12	300	11	80	300	1.4	0.4	200	60	SOIC-16,TQFN-2.6×1.8-16L	Excellent THD, High Off-Isolation, Very Low Crosstalk, Rail-to-Rail Negative Signal Passing
2	SGM3712	SPDT	2.7 ~ 12	600	0.9	500	100	1.5	0.5	400	100	WLCSP-1.27×2.13-15B, SOIC-14	Excellent THD, Low R _{FLAT(ON)} , Rail-to-Rail Negative Signal Passing
2	SGM3713	SPST	2.7 ~ 9	375	0.18	320	220	1.6	0.4	175	520	TQFN-3×3-16L, WLCSP-1.62×1.23-12B	Excellent THD, Low R _{FLAT(ON)} , Rail-to-Rail Negative Signal Passing
2	SGM3714	SPST	2.7 ~ 9	375	0.18	320	220	1.6	0.4	210ms	720ms	TQFN-3×3-16L, WLCSP-1.62×1.23-12B	Excellent THD, Low R _{FLAT(ON)} , Click-Pop Noise Suppressor, Rail-to-Rail Negative Signal Passing
2	SGM3715	SPDT	2.7 ~ 12	520	0.8	1000	100	1.5	0.5	880	190	WLCSP-1.27×2.13-15B	Excellent THD, Low R _{FLAT(ON)} , Click-Pop Noise Suppressor, Rail-to-Rail Negative Signal Passing
1	SGM3716	SPDT	-12 ~ -4	25	4.5	25	400	1.6	0.7	170	95	SC70-6	High Voltage, Negative Voltage SPDT Switch
2	SGM3717	SPDT	2.5 ~ 5.0	<6	4	16	400	1.5	0.6	15	11	UTQFN-1.8×1.4-10L, MSOP-10	400MHz, Negative Signal Passing, Tiny Package, Dual SPDT
2	SGM3718	SPDT	2.5 ~ 5.0	<3.5	0.6	85	80	1.5	0.6	17	24	UTQFN-1.8×1.4-10L	80MHz, Negative Signal Passing, Tiny Package, Dual SPDT
1	SGM3719	SPDT	2.5 ~ 5.0	<8	4	16	400	1.65	0.6	15	11	SOT-23-6	400MHz, Negative Signal Passing, Single SPDT
1	SGM3798	1:2	2.6 ~ 5.0	2	0.075		100	1.4	0.4	205	210	WLCSP-1.2×1.2-9B, TDFN-3×3-8L	Audio Headset Analog Switch with Reduced GND Switch R _{ON} and FM Capability
2	SGM3799	DPDT	1.8 ~ 4.35	<1	0.5	30	70	1.6	0.5	52	25	TQFN-2.6×1.8-16L	70MHz, Low Voltage, Low I _Q , Ultra Low R _{ON} , Dual DPDT
1	SGM4157YC	SPDT	1.8 ~ 5.5	0.1	0.8		90	1.6	0.4	56	32	SC70-6	Low R _{ON} , Small Package, Single SPDT
2	SGM44599	DPDT	1.8 ~ 5.5	<1	4	3.5	300	1.6	0.5	31.5	30	TQFN-3×3-16L, TQFN-2.5×2.5-16L	300MHz, Small Package, Dual DPDT
2	SGM44600	DPDT	1.8 ~ 5.5	<1	4	4.8	300	1.6	0.5	29.5	29.5	TQFN-3×3-16L	300MHz, Small Package, Dual DPDT
2	SGM44601	DPDT	1.8 ~ 5.5	<1	4	3.5	300	1.6	0.5	36	30	TQFN-2.6×1.8-16L	300MHz, Tiny Package, Dual DPDT
2	SGM44602	DPDT	1.8 ~ 5.5	<1	4	4.8	300	1.6	0.5	32	26	TQFN-2.6×1.8-16L	300MHz, Tiny Package, Dual DPDT
2	SGM44603	DPDT	1.8 ~ 5.5	<1	4.5	20	300	1.6	0.5	40	30	TQFN-2.6×1.8-16L	300MHz, Tiny Package, Dual DPDT

Analog Switches

Channels per Package	Part Number	Type of Switch	V _{CC} (V)	Quiescent Current (μA)	R _{ON} (Ω)	Charge Injection (pC)	Bandwidth @-3dB (MHz)	Digital I/O V _{INH} Min (V)	Digital I/O V _{INL} Max (V)	t _{ON} (ns)	t _{OFF} (ns)	Package	Features
4	SGM4510	SPST	4.5 ~ 40		15.5	55	300	1.6	0.5	120	40	SOIC-16	40V, 300MHz, Quad SPST, Fast Turn-On Time
4	SGM4511	SPST	4.5 ~ 40		23	18	300	1.6	0.5	40	120	TSSOP-16, SOIC-16	40V, 300MHz, Quad SPST, Fast Turn-On Time
4	SGM4512	SPST	4.5 ~ 40		23	18	300	1.6	0.5	40	120	TSSOP-16, SOIC-16	40V, 300MHz, Quad SPST, Fast Turn-On Time
2	SGM4515	SPDT	2.7 ~ 24	70	1/11	600	160/130	1.4	0.4	200	60	SOIC-16, TQFN-2.6×1.8-16L	Low R _{FLAT(ON)} , High Off-Isolation, Very Low Crosstalk, Rail-to-Rail Signal Passing
2	SGM4516	SPDT	2.7 ~ 24	70	11	80	300	1.4	0.4	200	60	SOIC-16, TQFN-2.6×1.8-16L	Low R _{FLAT(ON)} , High Off-Isolation, Very Low Crosstalk, Rail-to-Rail Signal Passing
2	SGM4517	SPDT	2.7 ~ 24	350	0.9	500	100	1.5	0.5	400	100	WLCSP-1.27×2.13-15B, SOIC-14	Low R _{FLAT(ON)} , High Off-Isolation, Very Low Crosstalk, Rail-to-Rail Signal Passing
1	SGM4518	1:8	3.2 ~ 36	15	22	90	25	2.4	0.8	80	160	SSOP-16, TSSOP-16, SOIC-16, TQFN-3×3-16L	36V High Voltage, Single 1:8 Mux
2	SGM4519	1:4	3.2 ~ 36	15	22	50	160	2.4	0.8	80	135	SSOP-16, TSSOP-16, SOIC-16, TQFN-3×3-16L	36V High Voltage, Dual 1:4 Mux
3	SGM4520	SPDT	3.2 ~ 36	15	22	50	180	2.4	0.8	80	130	SSOP-16, TSSOP-16, SOIC-16, TQFN-3×3-16L	36V High Voltage, Triple 1:2 Mux
1	SGM4521	SPDT	4 ~ 12	20	4.4	25	450	1.45	0.6	170	65	SC70-6	High Voltage, Positive Voltage SPDT Switch
1	SGM4581	1:8	3.6 ~ 11	<20	36	15	90	2.4	0.8	60	60	SSOP-16, TSSOP-16, SOIC-16, TQFN-3×3-16L	High Voltage, Single 1:8 Mux
2	SGM4582	1:4	3.6 ~ 11	<20	36	15	120	2.4	0.8	60	60	SSOP-16, TSSOP-16, SOIC-16, TQFN-3×3-16L	High Voltage, Dual 1:4 Mux
3	SGM4583	SPDT	3.6 ~ 11	<20	36	10	140	2.4	0.8	60	70	SSOP-16, TSSOP-16, SOIC-16, TQFN-3×3-16L	High Voltage, Triple 1:2 Mux
1	SGM4588	1:8	4.5 ~ 40		23	18	160	1.6	0.5	50	180	TSSOP-16, SOIC-16	40V, 160MHz, Single 1:8 Mux in One Package, GPIO Control
2	SGM4589	1:4	4.5 ~ 40		23	18	300	1.6	0.5	50	180	TSSOP-16, SOIC-16	40V, 300MHz, Dual 1:4 Mux in One Package, GPIO Control
2	SGM4684	SPDT	1.8 ~ 5.5	<1	0.4	3	13	2.4	0.8	25	28	WLCSP-2.0×1.5-10B	Ultra Low R _{ON} , Tiny Package, Dual SPDT
2	SGM4717	SPDT	1.8 ~ 5.5	<5	4.5		300	1.5	0.6	26	20	WLCSP-2.0×1.5-10B, MSOP-10, TDFN-3×3-10L, TQFN-1.8×1.4-10L	300MHz, WLCSP, Tiny Package, Dual SPDT
2	SGM4782	1:4	1.8 ~ 4.2	<1	0.5	-18	30	1.6	0.5	20	20	TQFN-3×3-16L, TSSOP-16	Ultra Low R _{ON} , Dual, SPQT
1	SGM48751	1:8	2.5 ~ 5.5	<6	48	6	180	1.7	0.5	60	70	SSOP-16, TSSOP-16, SOIC-16, TQFN-3×3-16L	Low R _{ON} , Low Charge Injection, Single 1:8 Mux
1	SGM48751X	1:8	2.5 ~ 5.5	0.1	55	6	180	1.7	0.5	60	70	SSOP-16, TSSOP-16, SOIC-16, TQFN-3×3-16L	Low R _{ON} , Low Charge Injection, Single 1:8 Mux
2	SGM48752	1:4	2.5 ~ 5.5	<6	48	3	180	1.7	0.5	60	70	SSOP-16, TSSOP-16, SOIC-16, TQFN-3×3-16L	Low R _{ON} , Low Charge Injection, Dual 1:4 Mux
2	SGM48752X	1:4	2.5 ~ 5.5	0.1	55	3	180	1.7	0.5	60	70	SSOP-16, TSSOP-16, SOIC-16, TQFN-3×3-16L	Low R _{ON} , Low Charge Injection, Dual 1:4 Mux
3	SGM48753	SPDT	2.5 ~ 5.5	<6	48	3	180	1.7	0.5	60	70	SSOP-16, TSSOP-16, SOIC-16, TQFN-3×3-16L	Low R _{ON} , Low Charge Injection, Triple 1:2 Mux
4	SGM48754	SPST	2.5 ~ 5.5	<6	24	7	180	1.7	0.5	40	100	TSSOP-14, SOIC-14	Low R _{ON} , Low Charge Injection, Quad SPST
1	SGM48755	1:4	2.5 ~ 5.5	<6	24	3	180	1.7	0.5	50	85	MSOP-10	Low R _{ON} , Low Charge Injection, Single 1:4 Mux
1	SGM48756	SPDT	1.8 ~ 5.5	±0.1	3.5		250	1.8	0.4	26	20	SC70-6, XTDFN-1×1-6L, UTDFN-1.45×1-6AL	3.5Ω, Low Voltage SPDT Analog Switch in Ultra-Thin Package
1	SGM48757	SPDT	1.8 ~ 5.5	±0.1	1		72	1.5	0.5	100	100	SC70-6, SOT-23-6, UTDFN-1.45×1-6AL	SPDT 1Ω Analog Switch
2	SGM48759	SPST	1.65 ~ 5.5	0.1	4.5 @5V		340 @5V	2.9 @5V	1.8 @5V	2.8 @5V	3.1 @5V	VSSOP-8, MSOP-8	Dual Bilateral Analog Switch
1	SGM48760	SPST	1.65 ~ 5.5	0.1	4.8 @5V		360 @5V	2.9 @5V	1.8 @5V	3.2 @5V	3.7 @5V	SC70-5, SOT-23-5	Single SPST Analog Switch
1	SGM48780	1:4	1.8 ~ 4.2	<1	4	10	150	1.4	0.3	35	9	TDFN-3×3-10L, MSOP-10	Single SPQT
4	SGM5018	SPDT	1.8 ~ 5.5	<1	4.5	20	300	1.6	0.5	40	30	TSSOP-16	300MHz, Quad SPDT
2	SGM5223	SPDT	1.8 ~ 4.2	<1	0.5	13	55	1.6	0.5	17	27.5	TQFN-1.8×1.4-10L	Ultra Low R _{ON} , Dual SPDT
4	SGM65230	1:2	2.3 ~ 3.6	600	4		400 @3.3V	1.7	0.7	12 @3.3V	11 @3.3V	TSSOP-16	4-Bit 1:2 Mux, Low Voltage, High Bandwidth Bus Switch
1	SGM7222	DPDT	1.8 ~ 4.3	<1	4.5	11	550	1.6	0.5	10	22	TQFN-1.8×1.4-10L, MSOP-10, UTQFN-1.8×1.4-10L	USB 2.0 High Speed, Single DPDT
1	SGM7223	DPDT	1.8 ~ 4.3	<1	4.5	9.8	500	1.6	0.5	11	20	TQFN-2.1×1.6-10L	USB 2.0 High Speed, Single DPDT
1	SGM7224	DPDT	1.8 ~ 5.5	<0.5	6	2	850	1.5	0.4	28	18	UTQFN-1.8×1.4-10L, MSOP-10	High-Speed USB 2.0 (480Mbps) DPDT
1	SGM7226	DPDT	1.8 ~ 5.5	<30	5	10	550	1.5	0.35	15	20	TQFN-2.6×1.8-16L	5.5V, USB 2.0 High Speed, Single DPDT

Analog Switches

Channels per Package	Part Number	Type of Switch	V _{CC} (V)	Quiescent Current (μA)	R _{ON} (Ω)	Charge Injection (pC)	Bandwidth @-3dB (MHz)	Digital I/O V _{INH} Min (V)	Digital I/O V _{INL} Max (V)	t _{ON} (ns)	t _{OFF} (ns)	Package	Features
1	SGM7227	DPDT	1.8 ~ 4.3	<1	5	1.5	500	1.6	0.3	20	18	MSOP-10,UTQFN-1.8×1.4-10L	550MHz, USB 2.0 Certified, Tiny Package, Single DPDT
1	SGM7228	DPDT	1.8 ~ 4.3	<1	6	11	550	1.6	0.5	10	22	TQFN-1.8×1.4-10L	Low Cost, High Speed USB 2.0 (480Mbps) DPDT
1	SGM7229	DPDT	1.8 ~ 5.5	<0.5	5.5	2	850	1.5	0.4	40	15	UTQFN-1.8×1.4-10L,MSOP-10	High-Speed USB 2.0 (480Mbps) DPDT
1	SGM7237B	DPDT	2.7 ~ 5.5	26	1.2/4.5			1.7	0.5	0.01ms	300	UTQFN-1.8×1.4-10L,MSOP-10	USB 2.0 + Audio Switch, DPDT
2	SGM7300A/B	DPDT	3.0 ~ 3.6		5		10000	1.35	0.45	200	80	TLGA-2.5×4.5-20L	3.3V, Differential 2-Channel, 2:1 Multiplexer/Demultiplexer Switches
4	SGM7301	DPDT	3.0 ~ 3.6		4		8000	2	0.4	150	50	ULGA-3.5×9-42L	4-Channel High-Performance Differential Switch
2	SGM84782	1:4	1.8 ~ 4.2	<1	4	-18	150	1.6	0.5	17	9	TQFN-3×3-16L,TSSOP-16	Dual SPQT

Application-Specific Switches

Part Number	Type	V _{CC} (V)	Bandwidth		R _{ON} (Ω)	R _{ON} Flatness (Ω)	C _{ON} (pF)	C _{OFF} C _{S/C_D} (pF)	Crosstalk Typ (dB)	Charge Injection		Package	Features
			@-3dB (MHz)	Control Interface						Typ (pC)	Typ (pC)		
SGM6501	12×9	3.1 ~ 5.5	84	I ² C					-74			SSOP-28,TSSOP-28	12×9, Buffered
SGM6502	8×6	3.1 ~ 5.5	88	I ² C					-77			TSSOP-24	8×6, Buffered
SGM6503		1.8 ~ 5.5	400	I/O		3.5/0.45	12/185		-80	3/80		TQFN-3×3-20L	SIM I/F Swap
SGM6504	(2:2)×4	1.8 ~ 5.5	400	I/O	12	3.5	12		-80	2.5		TQFN-3×3-20L	4-2:2, Passive Swap
SGM6505	(1:2)×6	2 ~ 5	450	I/O	8.5	4.5	15	4/9	-55	1.2		TSSOP-24,TQFN-4×4-24L	Six Channels 1:2 Multiplexer
SGM6510	16×4	2.7 ~ 5.5	120	I ² C	30	8	40		-110	7		TSSOP-28,TQFN-4×4-28L	16×4, Passive
SGM6511	16×8	2.7 ~ 5.5	120	I ² C	30	8	50		-110	7		TQFN-5×5-32L,LQFP-7×7-32L	16×8, Passive
SGM6512	1:16	3.3 ~ 13.2	80	I/O	24	12	75	8/70	-70	25		TQFN-5×5-32L,TSSOP-28	1:16, Multiplexer
SGM6513	(1:8)×2	3.3 ~ 13.2	135	I/O	24	12	50	8/36	-70	25		TQFN-5×5-32L,TSSOP-28	Dual 1:8, Multiplexer
SGM6514	16×8	2.7 ~ 5.5	250	I ² C	30	8	50		-110	7		LQFP-7×7-32L	High Speed, 16×8, Passive, I ² C Interface
SGM6515	1:8	3.3 ~ 13.2	80	I/O	24	12	75	8/70	-70	25		TSSOP-16	1:8, Multiplexer
SGM6516	16×8	4.5 ~ 13.2	45	I/O	40		65	25	-47			LQFP-10×10-44L	16×8, Passive
SGM6518	16×8	2.7 ~ 5.5	250	SPI	28	7	50	25	-55	6		LQFP-7×7-32L	High Speed, 16×8, Passive, Serial Digital Interface
SGM65231	SPST×8	2.3 ~ 3.6	500	I/O	4.5		17.2	13.5				TQFN-4.5×3.5-20L,TSSOP-20	8-Bit SPST, Low Voltage, High Bandwidth Bus Switch
SGM65232	(1:2)×32	3.3 ~ 5	100	I/O	11		26	13	-60			LQFP-14×14-100L	High Speed, 32-Bit 2:1 Bus Multiplexer
SGM6533	(1:3)×3	2.5 ~ 5.5	350	I/O	7				-60			TQFN-3×3-20L,TSSOP-20	High Speed, 3-1:3 Multiplexer
SGM7220	Type C	2.7 ~ 5		I ² C,I/O								UTQFN-1.6×1.6-12L	USB Type-C Configuration, Channel Logic and Port Control
SGM7232	(1:3)×2	2.7 ~ 4.3	380/400	I/O	4/9		18	7	-90			UTQFN-2.2×1.4-12L	High Speed, 2-1:3 Multiplexer
SGM7300A/B	2:1	3.0 ~ 3.6	10000	I/O	5		1.5					TLGA-2.5×4.5-20L	3.3V, Differential 2-Channel, 2:1 Multiplexer/Demultiplexer Switches

Level Translators

Translators per Package	Part Number	Data Rate (Mbps)	V _{CC} (V)	V _L Range (V)	V _{CCA} Range (V)	V _{CCB} Range (V)	V _{CC} Shutdown I/O State	Shutdown I _{CC} Max (μA)	Logic Output	Package	Features
16	74ALVC164245			1.5 ~ 3.6	1.5 ~ 5.5	Yes	Hi-Z		Push-Pull	TSSOP-48	16-Bit Dual-Supply Translating Transceiver
16	74AVC16T245	380		0.8 ~ 3.6	0.8 ~ 3.6	Yes	Hi-Z		Push-Pull	TSSOP-48	16-Bit Dual-Supply Translating Transceiver
4	74AVC4T245	380		0.8 ~ 3.6	0.8 ~ 3.6	Yes	Hi-Z		Push-Pull	TSSOP-16	4-Bit Dual-Supply Translating Transceiver
8	74AVC8T245	380		0.8 ~ 3.6	0.8 ~ 3.6	Yes	Hi-Z		Push-Pull	TSSOP-24,TQFN-5.5×3.5-24L	8-Bit Dual-Supply Translating Transceiver
2	74AVCH2T45	500		0.8 ~ 3.6	0.8 ~ 3.6	Yes	Hi-Z		Push-Pull	VSSOP-8	2-Bit Dual-Supply Translating Transceiver
4	74GTL2005		3 ~ 3.6			Yes			Push-Pull	TSSOP-14	Quad GTL/GTL+ to LVTTL/TTL Bi-Directional Non-Latched Translator
1	74LVC1T45	420		1.65 ~ 5.5	1.65 ~ 5.5	Yes	Hi-Z		Push-Pull	SC70-6,SOT-23-6	Single-Bit Dual-Supply Bus Transceiver
2	74LVC2T45	420		1.65 ~ 5.5	1.65 ~ 5.5	Yes	Hi-Z		Push-Pull	MSOP-8,XTDFN-1.35×1-8L	2-Bit Dual-Supply Bus Transceiver
1	SGM4535	2.7 ~ 5.5	1.6 ~ 5.5			Yes	Low			TQFN-5×5-32L	Smart Card Interface
2	SGM4542			0.9 ~ 3.6	0.9 ~ 3.6	Yes	Hi-Z		Open-Drain/Push-Pull	XTDFN-1.35×1-8L	GPIO Level Shifter
2	SGM4551			1.2 ~ 3.3	1.8 ~ 5.5	Yes	Hi-Z	8	Open-Drain	SOT-23-8,XTDFN-1.4×1-8L	I ² C Level Shifter
1	SGM4552	24/2		1.65 ~ 5.5	2.3 ~ 5.5	Yes	Hi-Z	5.5	Open-Drain/Push-Pull	UTDFN-1.45×1-6L,SOT-23-6,SC70-6	GPIO Level Shifter
2	SGM4553	24/2		1.65 ~ 5.5	2.3 ~ 5.5	Yes	Hi-Z	5.5	Open-Drain/Push-Pull	SOT-23-8,XTDFN-1.4×1-8L	GPIO Level Shifter
1	SGM4554	100		1.2 ~ 5.0	1.65 ~ 5.5	Yes	Hi-Z	10	Push-Pull	SC70-6,UTDFN-1.45×1-6L	GPIO Level Shifter
1	SGM4555	2.7 ~ 5.5	1.4 ~ 5.5			Yes	Low			TQFN-2×2-12L,TQFN-3×3-16L	Card Interface
2	SGM4556	100		1.2 ~ 5.0	1.65 ~ 5.5	Yes	Hi-Z	10	Push-Pull	SOT-23-8,XTDFN-1.4×1-8L	GPIO Level Shifter
2	SGM4558	2.7 ~ 5.5	1.4 ~ 5.5			Yes	Low	2		TQFN-3×3-20L	SIM/Smart Card Interface
1	SGM4560	3.3 ~ 5.5	1.6 ~ 5.5			Yes	Low	8		TSSOP-14	CA Card Interface
1	SGM4561	5.0 ~ 5.5	1.6 ~ 5.5			Yes	Low			MSOP-10	HDMI Interface
4	SGM4563	100		1.2 ~ 5.5	1.65 ~ 5.5	No	Hi-Z	5	Push-Pull	SOIC-14,UTQFN-1.8×1.8-12L	SPI Bus or UART Interface
4	SGM4564	100		1.2 ~ 5.5	1.65 ~ 5.5	Yes	Hi-Z	12/9	Push-Pull	SOIC-14,UTQFN-1.8×1.8-12L,TQFN-2×2-12L	GPIO Level Shifter
6	SGM4566	100		1.2 ~ 5.5	1.65 ~ 5.5	Yes	Hi-Z	12/9	Push-Pull	TSSOP-16,TQFN-2.6×1.8-16L	GPIO Level Shifter
8	SGM4568	100		1.2 ~ 5.5	1.65 ~ 5.5	Yes	Hi-Z	12/9	Push-Pull	TSSOP-20,TQFN-3×3-20L	GPIO Level Shifter
4	SGM4573	24		1.65 ~ 3.6	2.3 ~ 5.5	Yes	Hi-Z		Open-Drain/Push-Pull	TSSOP-14	Open-Drain, Dual-Supply Translating Transceiver
4	SGM4574	24/2		1.65 ~ 5.5	2.3 ~ 5.5	Yes	Hi-Z		Open-Drain/Push-Pull	SOIC-14,UTQFN-1.8×1.8-12L,TQFN-2×2-12L	GPIO Level Shifter
6	SGM4576	24/2		1.65 ~ 5.5	2.3 ~ 5.5	Yes	Hi-Z		Open-Drain/Push-Pull	TQFN-2.6×1.8-16L	GPIO Level Shifter
8	SGM4578	24/2		1.65 ~ 5.5	2.3 ~ 5.5	Yes	Hi-Z		Open-Drain/Push-Pull	TSSOP-20,TQFN-3×3-20L	GPIO Level Shifter
4	SGM4T245			1.2 ~ 5.0	1.2 ~ 5.0	Yes	Hi-Z		Push-Pull	TSSOP-16,TQFN-2.6×1.8-16L	4-Bit Non-Inverting Bus Transceiver
8	SGM8T245			1.2 ~ 5.0	1.2 ~ 5.0	Yes	Hi-Z		Push-Pull	TSSOP-24,TQFN-5.5×3.5-24L	8-Bit Non-Inverting Bus Transceiver

Logic ICs

Level Shifters and Drivers

Channels per Package	Part Number	V _{IN} Range (V)	V _{CC} Range (V)	Logic Low Input Voltage (V)	Logic High Input Voltage (V)	Enable Voltage Range (V)	EN High Threshold (V _{ENH}) (V)	EN Low Threshold (V _{ENL}) (V)	Output Peak Current (A)	Rise Time (ns)	Fall Time (ns)	Shutdown I _{CC} Max (mA)	V _{CC} Shutdown I/O State	I _{CC} Typ (mA)	Package	Features
1	SGM4514	16 ~ 70	0.6	1.55					4	4		0.25	0.25	TQFN-4×4-16AL,TDFN-3×3-8BL,MSOP-8 (Exposed Pad)	High Voltage CMOS RF Antenna Switch Driver	
2	SGM4546	1.8 ~ 5.5	4.5 ~ 26.5	0.7	1.6	0 ~ 5.5	2.1	0.6	2	12	13	0.24	Low	1.27	TSSOP-16 (Exposed Pad),TDFN-3×3-14L	Piezo-Sounder and Ultra-Sound Transducer Driver
2	SGM4547	2.5 ~ 20	4.5 ~ 26.5	0.7	1.6	0 ~ 5.5	2.1	0.6	2	12	13	0.24	Low	1.27	TDFN-3×3-14L	High SPL Piezo-Sounder Driver
2	SGM4548	4.5 ~ 26.5	0.7	1.6	0 ~ 5.5	2.1	0.6	2	12	13	0.24	Low	1.12	SOIC-8,TDFN-2×2-8L	High Speed, Dual Level Shifters and Drivers	
2	SGM4549	4.5 ~ 26.5	0.7	1.6	0 ~ 5.5	2.1	0.6	2	12	13	0.24	Low	1.27	SOIC-8,TDFN-2×2-8L	High Speed, Dual Level Shifters and Drivers	
2	SGM4550	4.5 ~ 26.5	0.7	1.6	0 ~ 5.5	2.1	0.6	2	12	13	0.24	Low	1.17	SOIC-8,TDFN-2×2-8L	High Speed, Dual Level Shifters and Drivers	
2	SGM48000	4.5 ~ 26.5	0.7	1.6					2	12	13			1.14	SOIC-8,TDFN-2×2-8L	2A Peak Current, 26.5V, Dual Non-Inverting
2	SGM48001	4.5 ~ 26.5	0.7	1.6					2	12	13			1.29	SOIC-8,TDFN-2×2-8L	2A Peak Current, 26.5V, Dual Inverting
2	SGM48002	4.5 ~ 26.5	0.7	1.6					2	12	13			1.19	SOIC-8,TDFN-2×2-8L	2A Peak Current, 26.5V, Inverting and Non-Inverting

Logic ICs

Small Logic Series

Part Number	Package	Features
SGM7SZ00	SOT-23-5,SC70-5	Single 2-Input NAND Gate
SGM7SZ04	SOT-23-5,SC70-5,UTDFN-1.45×1-6L	Single Inverter
SGM7SZ08	XTDFN-1×1-6L,SOT-23-5,SC70-5,UTDFN-1.45×1-6L	Single 2-Input AND Gate
SGM7SZ125	SOT-23-5,SC70-5	Single Active-Low 3-State Logic Buffer
SGM7SZ126	SOT-23-5,SC70-5	Single Active-High 3-State Logic Buffer
SGM7SZ14	SOT-23-5,SC70-5	Single Inverter with Schmitt Trigger Input
SGM7SZ19	SC70-6	Single 1-of-2 Decoder/Demultiplexer
SGM7SZ32	SOT-23-5,SC70-5	Single 2-Input OR Gate
SGM7SZ86	SOT-23-5,SC70-5	Single 2-Input Exclusive-OR Gate
SGM7SZ244	TSSOP-20	Octal Buffers and Line Drivers with 3-State Outputs
SGM7SZ245	TSSOP-20,TQFN-5.5×3.5-24L,TQFN-3×3-20L	Octal Bus Transceivers with 3-State Outputs
SGM4T245	TSSOP-16,TQFN-2.6×1.8-16L	4-Bit Non-Inverting Bus Transceiver
SGM8T245	TSSOP-24,TQFN-5.5×3.5-24L	8-Bit Non-Inverting Bus Transceiver
74AHC123	SOIC-16,TSSOP-16	Dual Retriggerable Monostable Multivibrator with Reset
74AHC14	SOIC-14,TSSOP-14	Hex Inverter with Schmitt Trigger Inputs
74AHC1G08Q	SC70-5	Single 2-Input AND Gate
74AHC595	SOIC-16,TSSOP-16	8-Bit Serial-In/Serial-Out or Parallel-Out Shift Register with Output Latches
74AHCT244	SOIC-20	Octal Buffer/Line Driver with 3-State Outputs
74AHCT86	SOIC-14	Quad 2-Input Exclusive-OR Gate

Part Number	Package	Features
74ALVC164245	TSSOP-48	16-Bit Dual-Supply Translating Transceiver with 3-State Outputs
74AVC16T245	TSSOP-48	16-Bit Dual-Supply Translating Transceiver with 3-State Outputs
74AVC8T245	TSSOP-24,TQFN-5.5×3.5-24L	8-Bit Dual-Supply Translating Transceiver with 3-State Outputs
74LV1T08	SOT-23-5,SC70-5	Single 2-Input Translating AND Gate
74LVC04	SOIC-14,TSSOP-14	Hex Inverter
74LVC08	SOIC-14,TSSOP-14	Quad 2-Input AND Gate
74LVC138	SOIC-16,TSSOP-16,TQFN-2.5×3.5-16L	3-Line to 8-Line Inverting Decoder/Demultiplexer
74LVC157	SOIC-16,TSSOP-16,TQFN-2.5×3.5-16L	Quad 2-Input Multiplexer
74LVC1G00	SC70-5	Single 2-Input NAND Gate
74LVC1G125	SOT-23-5,SC70-5	Bus Buffers and Line Drivers with 3-State Output
74LVC1G32	SOT-23-5,SC70-5	Single 2-Input OR Gate
74LVC1G32Q	SC70-5	Single 2-Input OR Gate
74LVC1T45	SC70-6,SOT-23-6	Single-Bit Dual-Supply Bus Transceiver with Configurable Voltage Translation
74LVC2T45	MSOP-8,XTDFN-1.35×1-8L	2-Bit Dual-Supply Bus Transceiver with Configurable Voltage Translation
74LVC2G04	SOT-23-6,SC70-6	Dual Inverter
74LVC2G08	VSSOP-8	Dual 2-Input AND Gate
74LVC2G14	SC70-6	Dual Inverter with 5V Tolerant Schmitt Trigger Inputs
74LVC32	SOIC-14,TSSOP-14	Quad 2-Input OR Gate
74LVC74	TSSOP-14	Dual D-Type Positive Edge-Triggered Flip-Flop with Set and Reset

Small Logic Series

Part Number	Package	Features
74LVCN16373	TSSOP-48	16-Bit D-Type Transparent Latch with 3-State Outputs
74LVCN244	SOIC-20,TSSOP-20,SSOP-20	Octal Buffers and Line Drivers with 3-State Outputs
74LVTH125	SOIC-14	3.3V, Quad Buffers and Line Drivers with 3-State Outputs
74LVTH16244	TSSOP-48	3.3V, 16-Bit Buffers and Line Drivers with 3-State Outputs
74LVTH16373	TSSOP-48	3.3V, 16-Bit D-Type Transparent Latch with 3-State Outputs

Part Number	Package	Features
74LVTH245	TQFN-4.5×2.5-20L,SSOP-20,TSSOP-20	3.3V, Octal Transceiver with Direction Pin and 3-State Outputs
74LVTN16244	TSSOP-48	3.3V, 16-Bit Buffers and Line Drivers with 3-State Outputs
74LVTN16245	TSSOP-48	3.3V, 16-Bit Transceiver with Direction Pin and 3-State Outputs
74LVTN16374	TSSOP-48	3.3V, 16-Bit D-Type Edge-Triggered Flip-Flops with 3-State Outputs

Temperature Sensors

Device Type	Part Number	Interface	V_{CC} (V)	Temp Resolution Max (Bits)	Local Sensor Accuracy Max ($\pm^{\circ}C$)	Shutdown		Quiescent Current (µA)	Operating Temperature Range ($^{\circ}C$)	Remote Channels (#)	Package	Features
						Current (µA)	Addresses					
Local and Remote	SGM446	Analog Output	4 ~ 35		-55°C to +150°C: -5 ~ 2			298.2	-55 to +150	0	UTDFN-2x2-2L,UTDFN-2x2-4L	2-Terminal, High-Precision, Current Output Temperature Sensor
Local	SGM447	Analog Output	1.5 ~ 5.5		-20°C to +85°C: 2.5 -55°C to +150°C: 3.5			3	-55 to +150	0	WL CSP-0.8x0.8-4B-A	Dual-Gain Analog Temperature Sensor with Class-AB Output
Local and Remote	SGM448	Analog Output	2.7 ~ 10		+25°C: 1 -55°C to +125°C: 2			26	-55 to +150	0	SOT-23	Low Power, High Accuracy Analog Output Temperature Sensor
Local and Remote	SGM449	Analog Output	2.7 ~ 10		+25°C: 1 -55°C to +125°C: 2			26	-55 to +150	0	SOT-23	Low Power, High Accuracy Analog Output Temperature Sensor
Local	SGM450	Analog Output	2.3 ~ 5.5		-40°C to +150°C: 2			7.5	-40 to +150	0	SC70-5,SOT-23	Low Power, High Accuracy Analog Output Temperature Sensor
Local and Remote	SGM451	I ² C and SMBus	3.0 ~ 5.5	12	-40°C to +85°C: 0.8 -40°C to +125°C: 1.2	<10	8	122	-40 to +125	1	TDFN-2x2-8BL	±1°C Local and Remote Temperature Sensor with η -Factor and Offset Correction, Series-Resistance Cancellation, and Programmable Digital Filter
Local	SGM452	I ² C	2.7 ~ 5.5	12	-55°C to +125°C: 1.2	<3	8	49	-55 to +125	0	SOIC-8,MSOP-8	Digital Temperature Sensor and Thermal Watchdog with I ² C Interface
Local	SGM457	Two-Wire, I ² C and SMBus Interface	1.6 ~ 5.5	12	-40°C to +125°C: 1.5	0.5	8	17	-40 to +125	0	SOT-563-6	Low Power, Low Supply Voltage Digital Temperature Sensor
Local	SGM458	I ² C and SMBus	1.6 ~ 5.5	12	-55°C to +125°C: 1	<2.5	8	2.9	-55 to +125	0	WL CSP-0.85x0.85-4B	Low Power, Low Supply Voltage Digital Temperature Sensor
Local	SGM459	I ² C	2.7 ~ 5.5	12	-55°C to +125°C: 1.2	<3	8	49	-55 to +125	0	TDFN-2x2-8AL	Digital Temperature Sensor and Thermal Watchdog with I ² C Interface

RF Switches

Part Number	Type of Switch	V _{CC} (V)	Frequency	Frequency	Insertion Loss			Operating Temperature Range (°C)	Package	Features
			Min (GHz)	Max (GHz)	Typ (dB)	0.1dB Compression Point (dBm)	Isolation (dB)			
SGM11102F	SPDT	2.4 ~ 3	0.1	6	0.9	33	16	-40 to +85	UTDFN-1.1×0.7-6L	High Linearity SPDT RF Switch
SGM11103F	SP3T	2.4 ~ 3	0.1	6	1.05	27	14	-40 to +85	UTQFN-1.1×1.1-9L	High Linearity SP3T RF Switch
SGM11124F	SP4T	2.4 ~ 3	0.1	6	0.85	27	15	-40 to +85	ULGA-1.1×1.1-9L	High Linearity SP4T RF Switch
SGM12213A	SP3T	1.65 ~ 1.95	0.4	5.8	0.64	38	23	-40 to +85	ULGA-1.1×1.1-9L	SP3T MIPI RFFE High Power Switch
SGM12214A	SP4T	1.65 ~ 1.95	0.4	5.8	0.68	38	23	-40 to +85	ULGA-1.1×1.1-9L	SP4T MIPI RFFE High Power Switch
SGM13001A		1.6 ~ 3.1	1.55	1.615				-40 to +85	UTDFN-1.1×0.7-6L	Low Noise Amplifier for GNSS
SGM13001B		1.6 ~ 3.1	1.55	1.615				-40 to +85	UTDFN-1.1×0.9-6L	Low Noise Amplifier for GNSS
SGM13001C		1.6 ~ 3.1	1.55	1.615				-40 to +85	UTDFN-1.5×1.0-6AL	Low Noise Amplifier for GNSS
SGM72002	SPDT	2.2 ~ 3	0.1	3	0.4	33	28	-40 to +85	UTDFN-1.1×0.7-6L	High Linearity SPDT RF Switch
SGM72003	SP3T	2.4 ~ 3	0.1	3	0.5	27	25	-40 to +85	UTQFN-1.1×1.1-9L	High Linearity SP3T RF Switch
SGM72004B	SP4T	2.4 ~ 3.4	0.1	3	0.6	30	25	-40 to +85	UTQFN-2×2-14L	SP4T Diversity RF Switch
SGM72006	SP6T	2.4 ~ 3.4	0.1	3	0.6	30	25	-40 to +85	UTQFN-2×2-14L	SP6T Diversity RF Switch
SGM72008	SP8T	2.4 ~ 3.4	0.1	3	0.6	30	25	-40 to +85	UTQFN-2×2-14L	SP8T Diversity RF Switch
SGM72022A	DPDT	1.7 ~ 3.3	0.4	5.8	0.66	38	18	-40 to +85	ULGA-1.1×1.5-10L	General Purpose DPDT Transfer Switch
SGM72106	SP6T	2.4 ~ 4.8	0.1	3	0.65	27	30	-40 to +85	UTQFN-2×2-14AL	SP6T LTE Switch with MIPI RFFE Interface
SGM72108	SP8T	2.4 ~ 4.8	0.1	3	0.65	27	30	-40 to +85	UTQFN-2×2-14AL	SP8T LTE Switch with MIPI RFFE Interface
SGM72110	SP10T	2.4 ~ 4.8	0.1	3	0.6	26	33	-40 to +85	UTQFN-2.4×2.4-20L	SP10T LTE Switch with MIPI RFFE Interface
SGM72112A	SP12T	2.4 ~ 4.8	0.1	3	0.75	26	31	-40 to +85	UTQFN-2.5×2.5-20L	SP12T LTE Switch with MIPI RFFE Interface
SGM72112B	DP12T	2.4 ~ 4.8	0.1	3.8	1	25	25	-40 to +85	ULGA-2.4×2-18L	DP12T Diversity Switch with MIPI RFFE for Carrier Aggregation
SGM72204A	SP4T	2.4 ~ 4.5	0.1	2.7	1.05	43	15	-40 to +85	UTQFN-1.1×1.5-10L	SP4T Antenna Tuning Switch

Reset ICs

Part Number	Supply Current (μ A)	Manual Reset	V_{CC} (V)	Reset Threshold (V)	V_{CC} to Reset Delay (μ s)	Reset Active Timeout Period (ms)	Reset Output	Package	Features
SGM708	20	Yes	1.0 ~ 5.5	4.65,4.4,4.0,3.08,2.93,2.63		200	Active Low/High (Push-Pull)	SOIC-8	6 Selectable Thresholds, Debounced Manual-Reset Input, Dual Reset Outputs
SGM800	3	No	1.0 ~ 5.5	2.93,2.63,2.32,1.63	80	Programmable	Active Low (Open-Drain)	SOT-23-5	Programmable Reset Timeout, Low Quiescent Current
SGM802	3	No	1.0 ~ 5.5	2.93,2.63,2.32,1.63	80	Programmable	Active High (Push-Pull)	SC70-4 (R),SOT-143	Programmable Reset Timeout, Low Quiescent Current, Small Package
SGM803	13	No	1.0 ~ 5.5	4.63,4.38,4.00,3.08,2.93,2.63,2.32,1.63	20	240	Active Low (Open-Drain)	SOT-23-3,SOT-23	8 Selectable Thresholds, Low Power
SGM803B	0.3	No	1.0 ~ 5.5	4.38,4.00,3.08,2.93,2.63	110	240	Active Low (Open-Drain)	SOT-23-3,SOT-23	5 Selectable Thresholds, Low Power
SGM804	3	No	1.0 ~ 5.5	2.93,2.63,2.32,1.63	80	Programmable	Active Low (Push-Pull)	SOT-23-5	Programmable Reset Timeout, Low Quiescent Current
SGM809	13	No	1.0 ~ 5.5	4.63,4.38,4.00,3.08,2.93,2.63,2.32,1.63	20	240	Active Low (Push-Pull)	SOT-23-3,SOT-23	8 Selectable Thresholds, Low Power
SGM809B	0.3	No	1.0 ~ 5.5	4.38,4.00,3.08,2.93,2.63	110	240	Active Low (Push-Pull)	SOT-23-3,SOT-23	5 Selectable Thresholds, Low Power
SGM810	13	No	1.0 ~ 5.5	4.63,4.38,4.00,3.08,2.93,2.63,2.32,1.63	20	240	Active High (Push-Pull)	SOT-23-3,SOT-23	8 Selectable Thresholds, Low Power
SGM810B	0.3	No	1.0 ~ 5.5	4.38,4.00,3.08,2.93,2.63	110	240	Active High (Push-Pull)	SOT-23-3,SOT-23	5 Selectable Thresholds, Low Power
SGM811	13	Yes	1.0 ~ 5.5	4.63,4.38,4.00,3.08,2.93,2.63,2.32,1.63	20	240	Active Low (Push-Pull)	SOT-143,SOT-23-5	8 Selectable Thresholds, Low Power
SGM811B	0.5	Yes	1.0 ~ 5.5	3.08,2.93,2.63	84	200	Active Low (Push-Pull)	SOT-143	3 Selectable Thresholds, Manual-Reset Input, Low Power
SGM812	13	Yes	1.0 ~ 5.5	4.63,4.38,4.00,3.08,2.93,2.63,2.32	20	240	Active High (Push-Pull)	SOT-143,SOT-23-5	7 Selectable Thresholds, Low Power
SGM812B	0.5	Yes	1.0 ~ 5.5	3.08,2.93,2.63	84	200	Active High (Push-Pull)	SOT-143	3 Selectable Thresholds, Manual-Reset Input, Low Power
SGM814	1.6	Yes	1.0 ~ 5.0	1.2,1.5,2.0,3.3	50	140	Active Low (Open-Drain)	SOT-23-6	4 Selectable Thresholds, Watchdog, Manual-Reset Input, Low Power
SGM815	1.6	Yes	1.0 ~ 5.0	1.6,3.3	50	140	Active Low (Open-Drain)	SOT-23-6	2 Selectable Thresholds, Watchdog, Manual-Reset Input, Low Power
SGM825	0.5	Yes	1.0 ~ 5.5	4.63,3.08,2.93,2.63	84	200	Active Low/High (Push-Pull)	SOT-23-5	4 Selectable Thresholds, Manual-Reset Input
SGM829	0.6	Yes	1.65 ~ 6.5	1.8 ~ 5.0	85	Programmable	Active Low (Open-Drain)	SOT-23-5	Adjustable Delay Time, Manual-Reset Input, Low Quiescent Current
SGM836	0.6	Yes	1.7 ~ 6.5	0.9 ~ 5.0/Adj (down to 0.4)	28	Programmable	Active Low (Open-Drain)	SOT-23-6,TDFN-2×2-6AL	Adjustable Delay Time, Manual-Reset Input, Low Quiescent Current

Supervisory Circuits

Watchdogs and Timers

Part Number	Supply Current (μ A)	Manual Reset	V_{CC} (V)	Reset Threshold (V)	Watchdog Timer	V_{CC} to Reset Delay (μ s)	Reset Active Timeout Period (ms)	Reset Output	Package	Features
SGM706	50	Yes	1.0 ~ 5.5	4.65,4.4,4.0,3.08,2.93,2.63	1.6s		200	Active Low (Push-Pull)	SOIC-8,MSOP-8	6 Selectable Thresholds, Watchdog, Debounced Manual-Reset Input
SGM706B	0.6	Yes	1.0 ~ 5.5	4.63,4.38,4.0,3.08,2.93,2.63	1.6s		200	Active Low (Push-Pull)	UTDFN-1.5×1.5-8L,SOIC-8,MSOP-8	6 Selectable Thresholds, Watchdog, Debounced Manual-Reset Input
SGM816	1.6	Yes	1.0 ~ 5.0	1.2,1.5,3.3	1.2s	50	140	Active Low (Push-Pull)	SOT-23-6	3 Selectable Thresholds, Watchdog, Manual-Reset Input, Low Power
SGM820	1.2	Yes	1.6 ~ 6.5	4.8,4.65,3.168,3.069,2.88,2.79,2.4,2.325,1.728,1.674	Programmable	90	200	Active Low (Open-Drain)	TDFN-3×3-8L,TDFN-2×2-8L	10 Selectable Thresholds, Watchdog, Manual-Reset Input
SGM821	0.035	Yes	1.8 ~ 5.5		Programmable			Active Low (Open-Drain)	SOT-23-6,TDFN-2×2-6AL	Programmable Watchdog Intervals, Watchdog, Manual-Reset Input
SGM823	0.5	Yes	1.0 ~ 5.5	4.63,3.08,2.93,2.63	1.6s	84	200	Active Low (Push-Pull)	SOT-23-5	4 Selectable Thresholds, Watchdog, Manual-Reset Input
SGM823A	0.64	Yes	1.0 ~ 5.5	2.19,1.67,1.58	1.6s	90	200	Active Low (Push-Pull)	SOT-23-5	3 Selectable Thresholds, Watchdog, Manual-Reset Input
SGM824	0.5	No	1.0 ~ 5.5	4.63,3.08,2.93,2.63	1.6s	84	200	Active Low/High (Push-Pull)	SOT-23-5	4 Selectable Thresholds, Watchdog

Voltage Detectors

Part Number	Supply Current (μ A)	Manual Reset	V_{CC} (V)	Reset Threshold (V)	V_{CC} to Reset Delay (μ s)	Reset Active Timeout Period (ms)	Reset Output	Package	Features	
SGM790A	0.3	No	2.5 ~ 5.5					UTDFN-1.2x1.2-6L	Low Current, Dual Load Attach/Detach Detection, 1.3s Wake-Up Output	
SGM790B	0.3	No	2.5 ~ 5.5					UTDFN-1.2x1.2-6L	Low Current, Dual Load Attach/Detach Detection, Open-Drain Flag Output	
SGM790C	0.3	No	2.5 ~ 5.5					UTDFN-1.2x1.2-6L	Low Current, Dual Load Attach/Detach Detection, 1.3s Wake-Up Output	
SGM808B	1	No	0.95 ~ 10	1.5 ~ 6.0 (0.1V Increments)			Active Low (Open-Drain)	SC70-4 (R),SOT-23-5,SOT-89-3	1.5V to 6.0V Selectable Thresholds, Low Power	
SGM813B	0.6	No	1.0 ~ 6.0	1.4		22	Active Low (Open-Drain)	TDFN-2x2-6L	1.4V Fixed Threshold, Low Quiescent Current	
SGM826B	1	No	0.95 ~ 10	2.2 ~ 6.0 (0.1V Increments)			Active Low (Open-Drain)	SC70-4 (R),SOT-23-5	2.2V to 6.0V Selectable Thresholds, Low Power	
SGM827B	1	No	0.95 ~ 10	2.2 ~ 6.0 (0.1V Increments)			Active Low (Open-Drain)	SC70-4 (R),SOT-23-5	2.2V to 6.0V Selectable Thresholds, Low Power	
SGM828B	1	No	0.95 ~ 10	2.2 ~ 6.0 (0.1V Increments)			Active Low (Open-Drain)	SC70-4 (R),SOT-23-5	2.2V to 6.0V Selectable Thresholds, Low Power	
SGM890B	0.3	No	1.0 ~ 6.0	0.8 ~ 5.0 (0.1V Increments)		Programmable	Active Low (Open-Drain)	SOT-23-5	Programmable Reset Timeout, Low Quiescent Current	
SGM891B	0.3	No	1.0 ~ 6.0	0.8 ~ 5.0 (0.1V Increments)			Active Low (Open-Drain)	SOT-23-5	0.8V to 5.0V Selectable Thresholds, Low Quiescent Current	
SGM892B	0.4	No	1.0 ~ 6.0	1.0 ~ 5.0 (0.1V Increments)	50	0.11	Active Low (Open-Drain)	SOT-23-5,SOT-23-3,UTDFN-1x1-4L	1.0V to 5.0V Selectable Thresholds, Low Power	
SGM893B	0.4	Yes	1.0 ~ 6.0	1.0 ~ 5.0 (0.1V Increments)	50	210	Active Low (Open-Drain)	SOT-23-5,UTDFN-1x1-4L	1.0V to 5.0V Selectable Thresholds, Low Power	
SGM895	2.1	No	1.6 ~ 5.5	Adj (0.5 Default)	50		Programmable	Active High (Push-Pull)	UTDFN-1.45x1-6AL,TSOT-23-6	Adjustable Input Delay Time, Enable Delay Time, Low Power
SGM896	2.1	No	1.6 ~ 5.5	Adj (0.5 Default)	50		Programmable	Active Low (Push-Pull)	UTDFN-1.45x1-6AL,TSOT-23-6	Adjustable Input Delay Time, Enable Delay Time, Low Power
SGM897	2.1	No	1.6 ~ 5.5	Adj (0.5 Default)	50		Programmable	Active High (Open-Drain)	UTDFN-1.45x1-6AL,TSOT-23-6	Adjustable Input Delay Time, Enable Delay Time, Low Power
SGM898	2.1	No	1.6 ~ 5.5	Adj (0.5 Default)	50		Programmable	Active Low (Open-Drain)	UTDFN-1.45x1-6AL,TSOT-23-6	Adjustable Input Delay Time, Enable Delay Time, Low Power
SGM899	2.1	No	1.6 ~ 5.5	Adj (0.5 Default)	50		Programmable	Active High (Push-Pull)	UTDFN-1.45x1-6AL,TSOT-23-6	Adjustable Input Delay Time, Enable Delay Time, Low Power

Supervisory Circuits

Current Monitors

Amplifiers per Package	Part Number	Interface	V_{CC} (V)	Input Common Mode Voltage Range	V_{OS} Max @25°C (mV)	TC of V_{OS} Typ (μ V/ $^{\circ}$ C)	Gain Error Avo Typ (dB)	CMRR Max (%)	GBP Typ (MHz)	Slew Rate Typ (V/ μ s)	Package	Features	
								Typ	Max	Typ			
1	SGM830		2.7 ~ 20	-4 ~ 70	0.025	0.1	20/50/100/200/500	0.1	160	1.3 @-3dB [†]	2.5	SOT-23-5	High Voltage, High-Precision Current Monitor
2	SGM831	I ² C and SMBus	3 ~ 5.5	0 ~ 32	0.0125	0.045		0.02	120	DC		MSOP-10,SOIC-8	Bi-Directional, High-Precision, Power/Current Monitor with 16-Bit I ² C Interface
2	SGM832	I ² C and SMBus	2.7 ~ 5.5	0 ~ 36	0.0125	0.045		0.02	120	DC		MSOP-10	Bi-Directional, High-Precision, High/Low-side Measurement, Power/Current Monitor with 16-Bit I ² C Interface
2	SGM835		2.7 ~ 5.5	-0.3 ~ 72	0.1/0.125	0.27		0.18/0.2	140	0.16 @-3dB [†]	0.5	MSOP-8	Dual-Channel, High Voltage, High-Precision Current Monitor, 20V/V and 50V/V Gains
2	SGM837	I ² C and SMBus	2.7 ~ 5.5	0 ~ 36	0.005	0.02		0.02	150	DC		MSOP-10	Bi-Directional, High-Precision, High/Low-side Measurement, Power/Current Monitor with 16-Bit I ² C Interface

Note: [†] Typical Values @ G = 10

Power Sequencer

Part Number	Supply Current (μ A)	Manual Reset	V_{CC} (V)	Reset Output	Package	Features
SGM822	36	No	2.7 ~ 5.5	Active Low/High (Open-Drain)	MSOP-8	The Easiest Method to Sequence Rails, Power-Up and Power-Down Control

Multi-Channel, High Accuracy, Low Noise, Low Power LDOs

Part Number	V _{OUT} (V)	V _{IN} (V)	Output Current (mA)	Dropout Voltage (mV)	Ground Current (No Load) (µA)	Output Voltage Noise (µV _{RMS})	PSRR @1kHz (dB)	Package	Features
SGM2022	2 Channels, 2.8/1.8,2.8/1.3,2.8/1.2,2.8/1.5,2.8/2.8,1.5/3.3,2.5/1.8,...	2.5 ~ 5.5	250	250	190	120	54	SOT-23-6	2 Channels, Low Power, High Accuracy
SGM2027	2 Channels, 3.0/3.0,1.2/1.8,1.8/3.0,1.5/2.8,1.8/3.3,1.2/2.8,1.8/2.8,2.8/3.3	2.5 ~ 5.5	250	250	190	120	54	TSOT-23-6	2 Channels, Low Power, High Accuracy
SGM2042	2 Channels, 1.8/0.75,1.8/0.70,...	1.6 ~ 5.5	100	220	40	145	65	UTDFN-1×1-4AL	2 Channels, Low Power, High Accuracy
SGM2206	2 Channels, 3.3/1.8,1.2/1.8,1.5/2.8,1.8/1.5,1.8/1.8,1.8/2.8,...	1.7 ~ 7.5	150	150	35	70	60	UTDFN-1.2×1.2-6AL	2 Channels, Low Power, High Accuracy

High Accuracy, Low Noise, Low Power LDOs

Part Number	V _{OUT} (V)	V _{IN} (V)	Output Current (mA)	Dropout Voltage (mV)	Ground Current (No Load) (µA)	Output Voltage Noise (µV _{RMS})	PSRR @1kHz (dB)	Package	Features
SGM2013	1.2,1.5,1.8,2.5,2.8,3.0,3.3	2.5 ~ 5.5	300	270	100	140	72	SOT-89-3	Low Power, Low Noise, 3-Terminal LDO
SGM2018	1.8,2.8,3.0,3.3	1.7 ~ 5	250	70 @100mA	1		27	SOT-23-5,UTDFN-1×1-4AL	Ultra Low Current Consumption, Low Dropout
SGM2019	1.2,1.5,1.8,2.5,2.6,2.8,2.85,3.0,3.3,Adj	2.5 ~ 5.5	300	270	100	30	74	SOT-23-5,SC70-5	Low Power, Low Noise, High PSRR LDO
SGM2020	1.2,1.5,1.8,2.5,2.8,2.85,3.0,3.3	2.5 ~ 5.5	300	270	110	30	67	SOT-23-5,SC70-5	Low Power, Low Noise, High PSRR LDO
SGM2021	0.9,1.2,1.3,1.5,1.8,2.1,2.5,2.8,3.0,3.3,...5.0	2.5 ~ 5.5	300	270	120	140	71	SOT-23-3	Low Power, Low Noise, 3-Terminal LDO
SGM2028	1.8,2.8,3.0,3.3,Adj	2.5 ~ 5.5	500	270	115	30	73	SOT-23-5	500mA, Low Power, Low Noise, High PSRR LDO
SGM2030	1.2,1.5,1.8,2.5,2.6,2.8,2.85,3.0,3.3	2.5 ~ 5.5	300	270	95	140	71	UTDFN-1.2×1.6-4L	Mini Package, Low Power, High PSRR LDO
SGM2031	1.2,1.5,1.8,2.5,2.6,2.8,2.85,3.0,3.3	2.5 ~ 5.5	250	230	95	140	72	UTDFN-1×1-4L	Mini Package, Low Power, High PSRR LDO
SGM2032	0.9,1.3,2.1,2.7,2.9,3.1,3.2,3.6,4.2,5.0,Adj	2.5 ~ 5.5	300	270	120	30	75	SOT-23-5,SC70-5	Low Power, Low Noise, High PSRR LDO
SGM2033	1.2,1.8,2.5,2.8,2.85,2.9,2.95,3.0,3.3,4.2,5.0,Adj	1.8 ~ 5.5	250	62	13.5	20	94	SOT-23-5,UTDFN-1×1-4AL	Ultra Low Noise, High PSRR
SGM2034	1.2,1.8,2.5,2.8,3.0,3.3,3.6,3.8,4.0,4.5,5.0	1.7 ~ 7.5	250	75 @100mA	1		27	SOT-23-3,SOT-89-3	Ultra Low Current Consumption, Low Dropout
SGM2035C	1.8,2.8,3.0,3.3,Adj	2.5 ~ 5.5	500	250	115	30	73	TDFN-2×2-6L,UTDFN-1.6×1.6-6L	500mA, Mini Package, Low Power, Low Noise, High PSRR LDO
SGM2036	0.8,0.9,1.0,1.05,1.1,1.2,1.3,1.35,1.5,1.8,1.85,2.1,2.2,2.3,2.5,2.6,2.7,2.8,...Adj	1.6 ~ 5.5	300	165	20	30	70	UTDFN-1×1-4L,SOT-23-5,SC70-5	Mini Package, Low I _Q , Low Noise, High PSRR LDO
SGM2036S	0.75,0.8,0.9,1.0,1.05,1.1,1.2,1.3,1.35,1.5,1.8,1.85,2.1,2.5,2.8,2.9,3.0,...Adj	1.6 ~ 5.5	300	190	30	13	86	XTDFN-1×1-4L,SOT-23-5,SC70-5	300mA, Low Power and Low Dropout RF Linear Regulator
SGM2037	0.8,0.9,1.0,1.05,1.1,1.15,1.2,1.25,1.3,1.5,1.8,2.5,2.8,3.0,3.3,3.6,Adj	0.8 ~ 5.5	500	120	37	25	71	SOT-23-5,SOT-23-6,UTDFN-1.2×1.2-6L	Low Noise, Very Low Dropout
SGM2038	0.8,0.9,1.0,1.05,1.1,1.15,1.2,1.25,1.3,1.5,1.8,2.5,2.8,3.0,3.3,3.6	0.8 ~ 5.5	500	120	37	25	71	UTDFN-1.2×1.2-4L	Low Noise, Very Low Dropout
SGM2039	0.8,0.9,1.0,1.05,1.1,1.2,1.8,2.5,2.8,3.0,3.3,4.2,Adj	1.8 ~ 5.5	1000	103	55	10	88	XTDFN-1.6×1.2-8L	Fast Transient Response, 1A, Low Noise, Low Voltage, Low Dropout Linear Regulator
SGM2040	1.2,1.5,1.8,2.5,2.8,3.0,3.3,3.6,4.0,4.2,5.0	1.7 ~ 7.5	250	60 @100mA	1		27	SOT-23-5,UTDFN-1×1-4AL	Ultra Low Current Consumption, Low Dropout
SGM2041	0.75,0.8,1.0,1.1,1.2,1.5,1.8,2.5,2.8,3.0,3.3,3.6,4.2,4.35	1.6 ~ 5.5	300	50	11	9.5	92	WLCSP-0.64×0.64-4B-A	Ultra Low Noise, Ultra Thin Package, Low Dropout
SGM2043	2.8,3.3	2.5 ~ 5.5	250	230	95	140	72	UTDFN-1×1-4L	Mini Package, Low Power, High PSRR LDO
SGM2045	0.6,0.75,0.8,0.85,1.0,1.05,1.1,1.2,1.5,1.75,1.8,1.825,2.2,2.5,2.8,2.9,3.0,3.3,4.2	1.1 ~ 5.5	300	80	15	9.5	92	XTDFN-1×1-4L,WLCSP-0.64×0.64-4B-A	300mA, Low V _{IN} , Ultra Low Noise and High PSRR LDO
SGM2046	0.75,0.8,0.85,1.0,1.05,1.1,1.15,1.2,1.8,2.8,3.0,3.3,Adj	0.5 ~ 5.5	1200	60	35	29	68	WLCSP-0.8×1.2-6B-B	1.2A, Low Noise, Ultra-Low Dropout Bias Rail CMOS Voltage Regulator
SGM2047	0.6,0.7,0.8,0.9,1.0,1.1,1.2,1.5,1.8,2.5,2.8,3.0,3.3,3.6	1.7 ~ 5.5	200	200	0.6	90	42	XTDFN-1×1-4L,SOT-23-5	200mA, Ultra-Low Quiescent Current CMOS Low Dropout Regulators
SGM2048	1.2,1.8,2.8,3.0,3.3,5.0,Adj	2.2 ~ 7	1000	150	80	30	75	TDFN-3×3-8CL	1A, Low Noise, Wide Bandwidth, High PSRR, Low Dropout Linear Regulator

High Accuracy, Low Noise, Low Power LDOs

Part Number	V _{OUT} (V)	V _{IN} (V)	Output Current (mA)	Dropout Voltage (mV)	Ground Current (No Load) (μA)	Output Voltage Noise (μV _{RMS})	PSRR @1kHz (dB)	Package	Features
SGM2049	Adj	1.1 ~ 7	2000	75	1.4	5	47 @10kHz	TQFN-3.5×3.5-20L,TQFN-5×5-20L	2A, High Accuracy, Low Noise, Low Dropout Linear Regulator
SGM2050	Adj	1.1 ~ 7	3000	99	1.4	5	48 @10kHz	TQFN-3.5×3.5-20L	3A, High Accuracy, Low Noise, Low Dropout Linear Regulator
SGM2051	0.75,0.8,0.85,1.0,1.05,1.1,1.15,1.2,1.8,2.8,3.0,3.3,Adj	0.5 ~ 5.5	1200	60	96	29	70	WLCSP-0.8×1.2-6B-A	1.2A, Ultra High PSRR, Fast Load Transient, Bias Rail CMOS Voltage Regulator
SGM2052	0.75,0.8,0.85,1.0,1.05,1.1,1.15,1.2,1.8,2.8,3.0,3.3,Adj	0.5 ~ 5.5	1500	75	96	29	70	WLCSP-0.8×1.2-6B-A	1.5A, Ultra High PSRR, Fast Load Transient, Bias Rail CMOS Voltage Regulator
SGM2053	1.0,1.05,1.1,1.8,2.8,3.0,3.3,Adj	1.5 ~ 5.5	500	95	17	20	93	SOT-23-6	500mA, Ultra Low Dropout, Low Power, RF Linear Regulator
SGM2054		1.1 ~ 3.5	3000					TDFN-3×3-10L	Sink and Source DDR Termination Regulator
SGM2056	Adj	1.1 ~ 7	1200	85	2600	6.5	72	TDFN-3×3-8DL	1.2A, 7V, High PSRR, Ultra-Low Noise, Ultra-Low Dropout Linear Regulator
SGM2058	Adj	2.3 ~ 5.5	265	58 (MAX) @I _{OUT2} =60mA	170	30 @50kHz		TQFN-1.8×1.4-10L	Negative Charge Pump and Adjustable Regulator
SGM2059	1.2,1.5,1.8,2.5,2.8,2.9,3.0,3.3,4.2,Adj	1.1 ~ 5.5	300	72	13	9.5	92	SOT-23-5,SC70-5	300mA, Low V _{IN} , Ultra Low Noise and High PSRR Linear Regulator
SGM2065	Adj	0.8 ~ 5.5	1000	220	37	25	71	XTDFN-1.2×1.2-6L	1A, Low Noise, Ultra-Low Dropout, Bias Rail CMOS Voltage Regulator
SGM2066	Adj	2.7 ~ 5.5	250	36 @100mA	590	28	37 @50kHz	TDFN-2×2-8AL	Low-Noise Regulated, Switched-Capacitor Voltage Inverter

High Reliability LDOs

Part Number	V _{IN} Min (V)	V _{IN} Max (V)	Output Current (mA)	Dropout Voltage (mV)	Ground Current (No Load) (μA)	PSRR @1kHz (dB)	V _{OUT} (V)	Package	Features
SGM2200	4	26.4	50	1750	1.75	47	1.5,1.8,2.5,2.8,3.0,3.3,3.6,4.4,5.0,Adj	SOT-89-3,TSOT-23-5,SOT-23,SC70-5	High Voltage, Low I _Q , Small Package, Single
SGM2200H	2.7	36	60	1600	2.2	40	1.8,2.5,3.0,3.3,3.6,5.0,Adj	SOT-89-3,TSOT-23-5,SOT-23,SC70-5	High Voltage, Low I _Q , Small Package, Single
SGM2201	2.7	36	150	1300	4.2	40	Adj	TSOT-23-5,TDFN-2×3-8L	High Voltage, Low I _Q , Small Package, Single
SGM2202	2.7	36	150	1300	4.2	40	2.5,2.8,3.0,3.3,3.5,0,Adj	SOT-23-5,SOT-23-6	High Voltage, Low I _Q , Small Package, Single
SGM2203	2.7	36	150	1300	4.2	40	2.5,2.8,3.0,3.3,3.5,3.6,4.0,4.2,5.0,5.75,8.0,9.0,12	SOT-89-3,SOT-23,SOT-23-5	High Voltage, Low I _Q , Small Package, Single
SGM2204	2.7	36	150	1300	4.2	30	12	SOIC-8 (Exposed Pad),TO-252-3A	High Voltage, Low I _Q , Single
SGM2205	2.5	20	800	450	80	75	1.8,2.5,3.0,3.3,3.6,4.2,5.0,12,Adj	TDFN-3×3-8L,SOIC-8,SOT-89-3,SOT-223-3,TO-263-5B	High Voltage, Low Noise
SGM2207	2.5	20	800	400	80	75	Adj	TDFN-2×3-8BL	High Voltage, Low Noise
SGM2208	0	24	3000	155	55		Adj	TDFN-3×3-12L,TO-263-5B,TSSOP-16 (Exposed Pad)	High Voltage, Low Noise, Current Source Reference
SGM2209	-2.7	-24	-500	-260	-42	-75	1.2,1.5,1.8,2.5,2.8,3.0,3.3,5.0,Adj	TDFN-2×2-6AL,TDFN-3×3-8L,SOT-23-5	High Voltage, Low Noise, High PSRR
SGM2210	2.5	20	300	240	36	100	1.2,1.8,2.5,3.3,5.0,Adj	SOT-23-5	High Voltage, Low Noise
SGM2211	2.7	20	500	360	39	100	1.2,1.5,1.8,2.5,2.8,3.0,3.3,3.8,4.2,5.0,Adj	TDFN-2×2-6AL,SOT-23-5	High Voltage, Low Noise
SGM2212	2.7	20	800	280	80	75	1.2,1.8,2.5,2.8,3.3,5.0,Adj	TDFN-3×3-8L,SOT-223-3,TO-263-3,TO-252-2	High Voltage, Low Noise
SGM2214	2.7	16	300	235	40	85	1.5,1.8,2.5,2.7,2.8,3.0,3.3,5.0,Adj	SOIC-8	High Voltage, Low I _Q , Low Dropout
SGM2217	2.8	30	1500	1300	2000	70	1.8,2.5,2.8,3.0,3.3,5.0,12,Adj	TO-263-3A,TDFN-4×4-8L	1.5A, Low Dropout Positive Regulator
SGM2220	2.2	13	300	330	1	52	0.8,1.8,2.8,3.0,3.3,3.9,4.0,4.1,4.2,5.0	SOT-23-5,SOT-89-3	1μA Low Quiescent Current, Low Dropout, 300mA, High Voltage Regulator
SGM2221	2.2	13	300	330	1	52	1.8,2.8,3.0,3.3,3.6,3.9,4.0,4.1,4.2,5.0,Adj	SOT-23-5,TDFN-2×2-6AL	1μA Low Quiescent Current, Low Dropout, 300mA, High Voltage Regulator

High Reliability LDOs

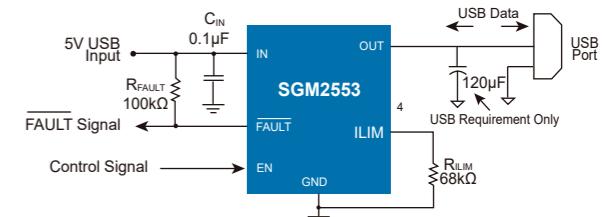
Part Number	V _{IN} Min (V)	V _{IN} Max (V)	Output Current (mA)	Dropout Voltage (mV)	Ground Current (No Load) (μ A)	PSRR @1kHz (dB)	V _{OUT} (V)	Package	Features
SGM2225	3.6	36	800	450	80	75	1.8,2.5,3.3,5.0,12,Adj	TDFN-3x3-8L,SOIC-8,SOT-89-3,SOT-223-3,TO-263-5B	High Voltage, Low Noise
SGM2300	4	18	50	1750	1.7	47	1.5,1.8,2.5,2.8,3.0,3.3,3.6,5.0,Adj	SOT-23-5,SOT-23	High Voltage, Low I _Q , Small Package, Single
SGM71XX	2.7	36	60	1600	2.2	40	3.0,3.3,3.6,4.4,5.0	SOT-89-3	High Voltage, Low I _Q , Small Package, Single

Protection Switches

Part Number	Input Over-Voltage Protection Threshold	Input Voltage Max (V)	Battery Over-Voltage Protection Threshold (V)	Maximum Start-Up Output Current (mA)	Shutdown Current (μA)	Soft-Start	Soft-Stop	LDO Mode Output Voltage (V)	Package	Features
	(V)	(V)	(V)	(mA)	(μA)	Yes	Yes	(V)		
SGM4062	6.8	18	4.35	1500	<2	Yes	Yes	5.1	TDFN-2x2-8L,MSOP-8 (Exposed Pad)	1.5A Fixed Start-Up Current, Soft-Start, Soft-Stop, 18V Input
SGM4064	6.8	18	4.35	Adj (Max 1500)	<2	Yes	Yes	5.1	TDFN-2x2-8L	Adjustable Start-Up Current, Soft-Start, Soft-Stop, 18V Input
SGM40642	7.6	6.5	NA	2500	1	Yes	NA	5.4	TDFN-2x2-6AL	5V eFuse with Precision Adjustable Current Limit and Over-Voltage Clamp
SGM40654	Adj (Default 6.8)	28	NA	4500	<1	Yes	NA	NA	WLCSP-1.30x1.83-12B,TDFN-3x3-12L	120V Surge/Inrush Immunity Function, Adj OVP, 4.5A, Soft Start-Up, 28V Input with Shutdown
SGM40655	Adj (Default 5.81)	28	NA	4500	<1	Yes	NA	NA	WLCSP-1.30x1.83-12B,TDFN-3x3-12L	120V Surge/Inrush Immunity Function, Adj OVP, 4.5A, Soft Start-Up, 28V Input with Shutdown
SGM40656	Adj (Default 15.58)	28	NA	6000	<2	Yes	NA	NA	WLCSP-1.31x1.84-12B	110V Surge/Inrush Immunity Function, Adj OVP, 6A, 20mΩ R _{DS(ON)} , Soft Start-Up, 28V Input with Shutdown
SGM40657	Adj (Default 6.82)	28	NA	6000	<2	Yes	NA	NA	WLCSP-1.31x1.84-12B	120V Surge/Inrush Immunity Function, Adj OVP, 6A, 20mΩ R _{DS(ON)} , Soft Start-Up, 28V Input with Shutdown
SGM40658	Adj (Default 5.95)	28	NA	6000	<2	Yes	NA	NA	WLCSP-1.31x1.84-12B	120V Surge/Inrush Immunity Function, Adj OVP, 6A, 20mΩ R _{DS(ON)} , Soft Start-Up, 28V Input with Shutdown
SGM40659	Adj (Default 15.61)	28	NA	4000	NA	Yes	NA	NA	WLCSP-1.30x0.94-6B	Adj OVP, 4A, 28V Input
SGM40660	Adj (Default 6.8)	28	NA	4000	NA	Yes	NA	NA	WLCSP-1.30x0.94-6B	Adj OVP, 4A, 28V Input
SGM40661	Adj (Default 5.94)	28	NA	4000	NA	Yes	NA	NA	WLCSP-1.30x0.94-6B	Adj OVP, 4A, 28V Input
SGM40663	Adj (Default 22.2)	28	NA	4500	Yes	NA	NA	NA	WLCSP-1.17x1.63-12B	110V/-400V Surge/Inrush Immunity Function, Adj OVP, 4.5A, 28mΩ R _{DS(ON)} , Soft Start-Up, 28V Input with Shutdown
SGM40664	Adj (Default 15.3)	28	NA	4500	Yes	NA	NA	NA	WLCSP-1.17x1.63-12B	110V/-400V Surge/Inrush Immunity Function, Adj OVP, 4.5A, 28mΩ R _{DS(ON)} , Soft Start-Up, 28V Input with Shutdown
SGM40665	Adj (Default 10.5)	28	NA	4500	Yes	NA	NA	NA	WLCSP-1.17x1.63-12B	110V/-400V Surge/Inrush Immunity Function, Adj OVP, 4.5A, 28mΩ R _{DS(ON)} , Soft Start-Up, 28V Input with Shutdown
SGM40666	Adj (Default 6.83)	28	NA	4500	Yes	NA	NA	NA	WLCSP-1.17x1.63-12B	110V/-400V Surge/Inrush Immunity Function, Adj OVP, 4.5A, 28mΩ R _{DS(ON)} , Soft Start-Up, 28V Input with Shutdown
SGM40666A	Adj (Default 6.83)	28	NA	4500	Yes	NA	NA	NA	WLCSP-1.17x1.63-12B	High-Current Over-Voltage Protector
SGM40666AS	6.79	28	NA	4500	Yes	NA	NA	NA	WLCSP-1.65x1.24-12B	High-Current Over-Voltage Protector
SGM40666B	Adj (Default 6.83)	28	NA	4500	Yes	NA	NA	NA	WLCSP-1.17x1.63-12B	High-Current Over-Voltage Protector
SGM40666BS	6.69	28	NA	4500	Yes	NA	NA	NA	WLCSP-1.65x1.24-12B	High-Current Over-Voltage Protector
SGM40668	Adj (Default 5.95)	28	NA	4500	Yes	NA	NA	NA	WLCSP-1.17x1.63-12B	110V/-400V Surge/Inrush Immunity Function, Adj OVP, 4.5A, 28mΩ R _{DS(ON)} , Soft Start-Up, 28V Input with Shutdown
SGM40669	Adj (Default 6.35)	28	NA	4500	Yes	NA	NA	NA	WLCSP-1.17x1.63-12B	110V/-400V Surge/Inrush Immunity Function, Adj OVP, 4.5A, 28mΩ R _{DS(ON)} , Soft Start-Up, 28V Input with Shutdown

Load Switches

Load switches are integrated electronic relays used for turning on and off power rails, power distribution and power savings. Load switches can be used in telecommunication equipments, computer equipments & peripherals, TVs & STBs, small portable devices, and test equipments with the benefits of reducing overall BOM count and solution size, as well as adding additional protection features.



Switches per Package	Part Number	Continuous Output Current Max (mA)	Quiescent Current (μA)	V _{IN} Min (V)	V _{IN} Max (V)	Enable Logic	Shutdown Current (μA)	Current Limit (mA)	Soft-Start	Fault Flag	Package	Features
1	SGM2521	2000	170	4.5	24	Active High	<1.4	Programmable (260~2000)	Yes	Yes	SOIC-8,TDFN-2x3-8BL	24V, 2A, Auto-Recovery Programmable Current Limit Switch
1	SGM2522	2000	170	4.5	24	Active High	<1.4	Programmable (260~2000)	Yes	Yes	SOIC-8,TDFN-2x3-8BL	24V, 2A, Latched-Off Programmable Current Limit Switch
1	SGM2523A	1600	150	2.6	22	Active High	<2	Programmable (100~1600)	Yes	Yes	SOT-23-6	22V, 1.6A, Auto-Recovery Programmable Current Limit Switch
1	SGM2523B	1600	150	2.6	22	Active High	<2	Programmable (100~1600)	Yes	Yes	SOT-23-6	22V, 1.6A, Latched-Off Programmable Current Limit Switch
1	SGM2523C	1200	150	2.6	22	Active High	<2	Programmable (100~1200)	Yes	Yes	SOT-23-6	Programmable Current Limit Switch
1	SGM2523D	1200	150	2.6	22	Active High	<2	Programmable (100~1200)	Yes	Yes	SOT-23-6	Programmable Current Limit Switch

Load Switches

Switches per Package	Part Number	Continuous Output Current Max (mA)	Quiescent Current (μ A)	V_{IN} Min (V)	V_{IN} Max (V)	Enable Logic	Shutdown Current (μ A)	Current Limit (mA)	Soft-Start	Fault Flag	Package	Features
1	SGM2525	5000	170	4.5	18	Active High	<1.2	Programmable (1000~5000)	Yes	Yes	TDFN-3x3-10L	Programmable Current Limit Switch with Output Voltage Protection
1	SGM2526	5000	170	4.5	22	Active High	<1.2	Programmable (1000~5000)	Yes	Yes	TDFN-3x3-10L	Programmable Current Limit Switch with Output Voltage Protection
1	SGM2527	5000	170	4.5	18	Active High	<1.2	Programmable (1000~5000)	Yes	Yes	TDFN-3x3-10L	Programmable Current Limit Switch
1	SGM2528	5000	110	9	18	Active High	48	Programmable (1500~5000)	Yes	Yes	TDFN-3x3-10L	5A, 12V Electronic Fuse (eFuse) with Thermal Shutdown
1	SGM2529	5000	102			Active High	47	Programmable (1500~5000)	Yes	Yes	TDFN-3x3-10L	5A, 5V Electronic Fuse (eFuse) with Thermal Shutdown
1	SGM2539	5000	75	2.5	20	Active Low	<2		Yes	No	WL CSP-2.56x1.54-15B	High Voltage, USB PD Power Switch
2	SGM2540	2000/1500	88	2.5	20	None			Yes	No	UTDFN-2x2-8AL	Autonomous 20V Charging Sources Selection and OTG Feeding Switch Combo
1	SGM2541	\pm 5000	123	3	20	Active Low			Yes	Yes	WL CSP-2.43x1.75-20B	28V/16V Bidirectional Load Switch with Wireless/Dual Input Capability
1	SGM2551A/C	1500	71	2.5	5.5	Active High	<2.5	Programmable (100~1700)	Yes	No	TDFN-2x2-6L,SOT-23-5	1.5A, Adjustable Current Limit, Soft-Start, Tiny Package
1	SGM2553/D	1500	71	2.5	5.5	Active High	<2.5	Programmable (100~1700)	Yes	Yes	TDFN-2x2-6L,SOT-23-6	1.5A, Adjustable Current Limit, Soft-Start, Tiny Package
1	SGM2553E	200	62	2.5	5.5	Active High	<2.5	Programmable (100~200)	Yes	Yes	TDFN-2x2-6L	Adjustable Current Limit, Soft-Start, Tiny Package
1	SGM2554A	1100	19	2.2	5.5	Active High	<1	1850	Yes	No	SOT-23-5	1.1A Output Current, 1.85A Fixed Current Limit, Low Power
1	SGM2554B	1100	19	2.2	5.5	None	NA	1750	Yes	No	SOT-23-5	1.1A Output Current, 1.75A Fixed Current Limit, Low Power
1	SGM2555	1100	19	2.2	5.5	Active High	<1	1850	Yes	No	TDFN-2x2-6L	1.1A Output Current, 1.85A Fixed Current Limit, Low Power
2	SGM2558A	600/CH	28	2.7	5.5	Active High	<1	1100	Yes	Yes	SOIC-8,TDFN-3x3-8L	600mA Output Current, 1.1A Fixed Current Limit, Dual Channels
2	SGM2558B	600/CH	28	2.7	5.5	Active Low	<1	1100	Yes	Yes	SOIC-8,TDFN-3x3-8L	600mA Output Current, 1.1A Fixed Current Limit, Dual Channels
2	SGM2560A	600/CH	28	2.7	5.5	Active High	<1	1100	Yes	Yes	SOIC-8,TDFN-3x3-8L	600mA Output Current, 1.1A Fixed Current Limit, Dual Channels
2	SGM2560B	600/CH	28	2.7	5.5	Active Low	<1	1100	Yes	Yes	SOIC-8,TDFN-3x3-8L	600mA Output Current, 1.1A Fixed Current Limit, Dual Channels
1	SGM2564	4000	0.44	1	5.5	Active High	<0.55		Yes	No	WL CSP-1.45x0.95-6B	4A, Ultra Low Quiescent Current, WL CSP Package
1	SGM2566A	6000	16	0.8	5.3	Active High	<1.4		Yes	Yes	TDFN-2x2-8L	6A, 17m Ω On-Resistance Load Switch
1	SGM2566B	6000	16	0.8	5.3	Active High	<1.4		Yes	Yes	TDFN-2x2-8L	6A, 17m Ω On-Resistance Load Switch
1	SGM2567A	4000	0.84	2.2	5.5	Active High	<1.5	5600	Yes	No	WL CSP-1.45x0.95-6B	5.5V, 4A, 15m Ω R _{ON} , Load Switch with Reverse Current Protection and Controlled Turn-On
1	SGM25711B		320	2.5	18	Active High	4	25mV/R _{SENSE}	Yes	Yes	MSOP-10	2.5V to 18V High-Efficiency Power-Limiting Hot Swap Controller
1	SGM2571	1000	0.22	1	5.5	Active High	<0.44		Yes	No	WL CSP-0.8x0.8-4B	1A, Ultra Low Quiescent Current, WL CSP Package
1	SGM2572	2000	0.22	1	5.5	Active High	<0.44		Yes	No	WL CSP-0.8x0.8-4B	2A, Ultra Low Quiescent Current, WL CSP Package
1	SGM2574	1000	0.22	1	5.5	Active High	<0.44		Yes	No	WL CSP-0.8x0.8-4B	1A, Ultra Low Quiescent Current, WL CSP Package
1	SGM2575	2000	0.22	1	5.5	Active High	<0.44		Yes	No	WL CSP-0.8x0.8-4B	2A, Ultra Low Quiescent Current, WL CSP Package
1	SGM2576/B	2100	23	2.5	5.5	Active High	<1	Programmable (100~2500)	Yes	No	SOT-23-5	Adjustable Current Limit, Soft-Start, Low Power
1	SGM2578	1000	5	1	5	Active High	<1.5	1600	Yes	No	WL CSP-0.9x0.9-4B	1A, Ultra Low Quiescent Current, WL CSP Package
1	SGM2578A	2000	0.22	1	5.5	Active High	<0.65		Yes	No	WL CSP-0.9x0.9-4B-A	2A, Ultra Low Quiescent Current, WL CSP Package
1	SGM2581A	1000	23	2.5	5.5	Active High	<1	1100	Yes	Yes	SOT-23-5	1A Output Current, 1.1A Fixed Current Limit, Low Power, Auto Discharge
1	SGM2581C	2000	23	2.5	5.5	Active High	<1	2100	Yes	Yes	SOT-23-5	2A Output Current, 2.1A Fixed Current Limit, Low Power, Auto Discharge
1	SGM2581E	2500	23	2.5	5.5	Active High	<1	2600	Yes	Yes	SOT-23-5	2.5A [†] Output Current, 2.6A Fixed Current Limit, Low Power, Auto Discharge
1	SGM2588A	1000	23	2.5	5.5	Active High	<1	1100	Yes	Yes	SOT-23-5	1A Output Current, 1.1A Fixed Current Limit, Low Power, Auto Discharge
1	SGM2588C	2000	23	2.5	5.5	Active High	<1	2100	Yes	Yes	SOT-23-5	2A Output Current, 2.1A Fixed Current Limit, Low Power, Auto Discharge
1	SGM2588E	2500	23	2.5	5.5	Active High	<1	2600	Yes	Yes	SOT-23-5	2.5A [†] Output Current, 2.6A Fixed Current Limit, Low Power, Auto Discharge

Note: † This parameter is guaranteed by design and characterization.

Load Switches

Switches per Package	Part Number	Continuous Output Current Max (mA)	Quiescent Current (µA)	V _{IN} Min (V)	V _{IN} Max (V)	Shutdown Enable Logic	Current Limit (mA)	Soft-Start	Fault Flag	Package	Features
1	SGM2588G	1000	23	2.5	5.5	Active High	<1	1100	Yes	Yes	SOT-23-5
1	SGM2588I	2000	23	2.5	5.5	Active High	<1	2100	Yes	Yes	SOT-23-5
1	SGM2588K	2500	23	2.5	5.5	Active High	<1	2600	Yes	Yes	SOT-23-5
2	SGM2596	6000/CH	22	0.6	5.7	Active High	<0.5		Yes	No	TDFN-3x2-14AL
2	SGM2596D	6000/CH	22	0.6	5.7	Active High	<0.5		Yes	No	TDFN-3x2-14AL
1	SGM40642	2500	190	2.5	6.5	Active High	1	Programmable (709~2959)	Yes	Yes	TDFN-2x2-6AL
1	SGM4073	6000	1	1.5	5.5	None	<1.5		Yes	No	WLCSP-1.31x1.62-12B
1	SGM4075-1	6000/4500	1	1.5	5.5	None	<1.5		Yes	No	WLCSP-1.31x1.62-12B,TDFN-3x3-8L
1	SGM4075-2	6000	1	1.5	5.5	None	<1.5		Yes	No	WLCSP-1.31x1.62-12B
1	SGM4076	6000/4500	1	1.6	5.5	None	<1.5		Yes	No	WLCSP-1.31x1.62-12B,TDFN-3x3-8L

Note: † This parameter is guaranteed by design and characterization.

Switch Complexes

Switches per Package	Part Number	Continuous Output Current Max (mA)	Quiescent Current (µA)	V _{IN} Min (V)	V _{IN} Max (V)	Shutdown Enable Logic	Current Limit (mA)	Soft-Start	Fault Flag	Package	Features
1	SGM2539	5000	75	2.5	20	Active Low	<2		Yes	No	WLCSP-2.56x1.54-15B
2	SGM2540	2000/1500	88	2.5	20	None			Yes	No	UTDFN-2x2-8AL
1	SGM2541	±5000	123	3	20	Active Low			Yes	Yes	WLCSP-2.43x1.75-20B
2	SGM2549		1.3	1.7	5.5	None			Yes	No	UTDFN-1.5x2-6L,SOT-23-6
1	SGM41007	5000	75	2.7	5.5	None			No	No	TSOT-23-6
1	SGM41008	5000	75	2.7	5.5	None	560		No	No	TSOT-23-6

MOSFETs

Configuration	Part Number	V _{DS} (V)	V _{GS} (±V)	R _{DS(ON)} Typ @10V (mΩ)	R _{DS(ON)} Typ @4.5V (mΩ)	R _{DS(ON)} Typ @2.5V (mΩ)	I _D @25°C (A)	I _D @25°C (A)	V _{GS(TH)} Max (V)	Q _G Typ @10V (nC)	Q _G Typ @4.5V (nC)	Q _{GS} Typ (nC)	Q _{GD} Typ (nC)	C _{iss} (pF)	C _{oss} (pF)	C _{RSS} (pF)	Package	Features
Single	SGMNM05330	30	20	4.3	6.1		20		2	34.2		4.6	7.2	1557	189	178	TDFN-2x2-6BL,TDFN-2x2-6CL	30V, Power, Single N-Channel, TDFN Package, MOSFET
Single	SGMNM45412	12	8		3	4	18		1	33.7		5.6	9.3	2630	757	708	PDFN-3.3x3.3-8AL	12V, Power, Single N-Channel, PDFN Package, MOSFET

MOSFETs

Configuration	Part Number	V _{DS} (V)	V _{GS} (±V)	R _{DS(ON)}	R _{DS(ON)}	R _{DS(ON)}	I _D	I _D	V _{GS(TH)}	Q _G	Q _G	Q _{GS}	Q _{GD}	C _{ISS} (pF)	C _{OSS} (pF)	C _{RSS} (pF)	Package	Features
				Typ @10V (mΩ)	Typ @4.5V (mΩ)	Typ @2.5V (mΩ)	T _A @25°C (A)	T _C @25°C (A)	Max (V)	Typ @10V (nC)	Typ @4.5V (nC)	Typ (nC)	Typ (nC)	(pF)				
Single	SGMNN07430	30	20	0.6	0.8		300	2.2	130.7	60.6	29	19.9	7865	3679	86	PDFN-5×6-8CL	30V, Power, Single N-Channel, PDFN Package, MOSFET	
Single	SGMNN28430	30	20	2.1	3.3		78	2.2	27.4	12.5	7.3	4.1	1631	744	52	PDFN-5×6-8AL	30V, Power, Single N-Channel, PDFN Package, MOSFET	
Single	SGMNN34430	30	20	2.5	4		69	2.2	23.1	10.4	6.7	3.1	1417	632	39	PDFN-5×6-8AL	30V, Power, Single N-Channel, PDFN Package, MOSFET	
Single	SGMNN40430	30	20	2.9	4.5		63	2.2	19.1	8.6	5.6	2.5	1156	481	36	PDFN-5×6-8AL	30V, Power, Single N-Channel, PDFN Package, MOSFET	

Battery Protection ICs

Part Number	Number of Series Cells	Input Over-Voltage Protection Threshold (V)	V _{IN} Min (V)	V _{IN} Max (V)	Shutdown Current From V _{IN} (µA)	Status Indication	Package	Features
SGM41002	2 to 4	4.35,4.45,4.5	3.6	24	<3	No	UTDFN-2×2.5-8L	Battery Protection IC for 2-Serial to 4-Serial-Cell Pack (Secondary Protection)
SGM41100	1	4.2,4.25,4.3,4.35,4.4,4.45,4.5,4.55	0	6	<0.1	No	UTDFN-1.5×2-6L	Single Battery Protection IC
SGM41100A	1	4.2,4.25,4.3,4.35,4.4,4.45,4.5,4.55	0	6	<0.1	No	UTDFN-1.5×2-6L	Single Battery Protection IC
SGM41100V	1	4.2,4.225,4.25,4.275,4.3,4.325,4.35,4.375,4.4,4.425,4.45,4.475,4.5,4.525,4.55,4.575	0	6	<0.1	No	UTDFN-1.5×2-6L	Single Battery Protection IC
SGM41100W	1	4.2,4.225,4.25,4.275,4.3,4.325,4.35,4.375,4.4,4.425,4.45,4.475,4.5,4.525,4.55,4.575	0	6	<0.1	No	UTDFN-1.5×2-6L	Single Battery Protection IC
SGM41101	1	4.2,4.25,4.3,4.35,4.4,4.45,4.5,4.55	0	6	<0.1	No	TDFN-2×2-6L	Single Battery Protection IC
SGM41102	1	4.2,4.225,4.25,4.275,4.3,4.325,4.35,4.375,4.4,4.425,4.45,4.475,4.5,4.525,4.55,4.575	0	6	<0.1	No	UTDFN-1.5×2-6L	Single Battery Protection IC
SGM41103	1	4.225,4.25,4.275,4.3,4.325,4.35,4.375,4.4,4.425,4.45,4.475,4.5,4.525,4.55,4.575,4.6	0	6	<0.1	No	XTDFN-1×1-4L	Capacitor-Less Primary Battery Protector and Switch with Temperature Sensing for Tiny Li+/Poly Cells
SGM41104	1	4.225,4.25,4.275,4.3,4.325,4.35,4.375,4.4,4.425,4.45,4.475,4.5,4.525,4.55,4.575,4.6	0	6	<0.1	No	XTDFN-1×1-4L	Primary Battery Protector and Switch for Tiny Li+/Poly Cells
SGM41105	1	4.225,4.25,4.275,4.3,4.325,4.35,4.375,4.4,4.425,4.45,4.475,4.5,4.525,4.55,4.575,4.6	0	6	<0.1	No	XTDFN-1×1-4L	Primary Battery Protector and Switch for Tiny Li+/Poly Cells

Battery Management ICs

Linear Regulation Chargers

Part Number	Number of Series Cells	Input Over-Voltage Protection Threshold (V)	Charge Voltage (V)	V _{IN} Min (V)	V _{IN} Max (V)	Programmable Current (mA)	Shutdown Current From V _{IN} (µA)	Foldback Current From Battery (µA)	Status Indication	Package	Features	
SGM4056	1	6.8,10.5	4.2	4.55	26.5	100 ~ 900	200	<1	Yes	TDFN-3×3-8L,TDFN-2×3-8L,TDFN-2×2-8L,SOIC-8 (Exposed Pad)	100mA ~ 900mA, 6.8V/10.5V Over-Voltage Protection, Input Voltage up to 26.5V	
SGM40560	1	3.65,4.05,4.2,4.3,4.4	2.7	7.5	5 ~ 700	7.5	<1	Yes	<1	TDFN-2×2-6AL,SOIC-8 (Exposed Pad)	Small Capacity Compact Battery Charger for Loosely Coupled Wireless Charging or Solar Charging	
SGM40561	1	10.5	4.2,4.3,4.35	4.55	26.5	5 ~ 200	180	<1	Yes	TDFN-2×2-8L	5mA ~ 200mA, 10.5V Over-Voltage Protection, Input Voltage up to 26.5V	
SGM40565	1	4.2,4.35	4.55	26.5	5 ~ 400	175	<1	Yes	<1	XTDFN-2×2-8L,TDFN-2×2-8L,WLCSP-1.3×0.7-6B	Ultra Thin Package, 5mA ~ 400mA, 4.2V/4.35V Output Voltage for Long Battery Life Application	
SGM40567	1	3.65,4.05,4.2,4.3,4.4	2.7	7.5	5 ~ 700	7.5	<1	Yes	<1	WLCSP-0.92×1.16-6B	Small Capacity Compact Battery Charger for Loosely Coupled Wireless Charging or Solar Charging	
SGM41007	1	4.35	2.7	5.5					Yes	TSOT-23-6	High Power Heating Resistance Wire Driver with Battery Protection, Firepower Control and Status Indication	
SGM41008	1	4.35	4.25	2.7	5.5	560			Yes	TSOT-23-6	High Power Heating Resistance Wire Driver with Battery Protection, Firepower Control and Status Indication	
SGM41562	1	6	3.6 ~ 4.545	4.35	5.5	8 ~ 456			Yes	<1	WLCSP-1.47×1.47-9B	500mA Single-Cell Li-Ion Battery Charger with Power Path Management
SGM41562B	1	6	4.2,4.38,4.545	4.35	5.5	8 ~ 456			Yes	<1	WLCSP-1.52×1.52-9B	500mA Single-Cell Li-Ion Battery Charger with Power Path Management
SGM41563	1	4.2,4.25,4.3,4.35,4.4	2.7	7.5	5 ~ 700				Yes	<1	SOIC-8 (Exposed Pad)	Li+/Polymer Battery Charger with Low I _Q Boost Operation
SGM41566	1	21	3.5 ~ 4.8	2.9	19.5	50 ~ 750			No	TDFN-2×2-8AL	Linear Regulation Battery Charger	

Switching Chargers

Part Number	Number of Series Cells	Input Over-Voltage Protection Threshold (V)	Charge Voltage (V)	V _{IN} Min (V)	V _{IN} Max (V)	Programmable Current (mA)	Shutdown Current From V _{IN} (µA)	Status Indication	Foldback Current From Battery (µA)	Package	Features
SGM41509	1	Adj (Default 5.65)	3.84 ~ 4.608	3.9	5.5	0 ~ 5056	50	Yes	25	TQFN-4x4-24L	I ² C Controlled 5A Single-Cell Battery Charger with Power Path Management
SGM41510	1	Adj (Default 15.1)	3.84 ~ 4.608	3.9	14	0 ~ 5120	50	Yes	20	TQFN-4x4-24L	I ² C Controlled 5A Single-Cell Battery Charger with Power Path Management
SGM41511	1	6.5,10.5,14	3.856 ~ 4.624	3.9	13.5	0 ~ 3000	45	Yes	20	TQFN-4x4-24L	I ² C Controlled 3A Single-Cell Battery Charger with Power Path Management
SGM41512	1	6.5,10.5,14	3.848 ~ 4.616	3.9	13.5	0 ~ 3000	45	Yes	20	TQFN-4x4-24L	I ² C Controlled 3A Single-Cell Battery Charger with Power Path Management
SGM41512A	1	6.5,10.5,14	3.848 ~ 4.616	3.9	13.5	0 ~ 3000	45	Yes	20	TQFN-4x4-24L	I ² C Controlled 3A Single-Cell Battery Charger with Power Path Management
SGM41513/A/D	1	6.5,10.5,14	3.856 ~ 4.624	3.9	13.5	0 ~ 3000	38	Yes	8.5	TQFN-4x4-24L	3A Single-Cell Battery Charger with Power Path Management
SGM41516D	1	6.5,10.5,14	3.856 ~ 4.624	3.9	13.5	0 ~ 3780	55	Yes	15	WLCSP-2.0x2.4-30B	3.78A Single-Cell Battery Charger with Power Path Management
SGM41518	1	6.5,10.5,14	3.856 ~ 4.624	3.9	13.5	0 ~ 1260	40	Yes	15	WLCSP-2.0x2.4-30B	1.26A Single-Cell Battery Charger with Power Path Management
SGM41519	1	6.5,10.5,14	3.856 ~ 4.624	3.9	13.5	0 ~ 3000	38	Yes	8.5	TQFN-4x4-24L	3A Single-Cell Battery Charger with Power Path Management
SGM41521B	1	6.5,10.5,14	3.856 ~ 4.624	3.9	13.5	0 ~ 3000	45	Yes	20	TQFN-4x4-24L	I ² C Controlled 3A Single-Cell Battery Charger with Power Path Management
SGM41522	1	13.5	4.1 ~ 4.45	4.2	13.2	0 ~ 2500		Yes	4.5	TDFN-2x3-8BL	Compact Switch, 2.5A Standalone Single-Cell Battery Charger with Safe and Reliable Charging
SGM41523	1	13.5	4.1 ~ 4.45	4.2	13.2	0 ~ 2500		Yes	4.5	TDFN-3x3-12L	Compact Switch, 2.5A Standalone Single-Cell Battery Charger with Safe and Reliable Charging
SGM41524	1	5.67	4.2 ~ 4.5	3.5	5.5	300 ~ 2300	15	Yes	<1.4	TDFN-2x3-8BL	Compact Switch Li+/Poly Battery Charger Safe and Reliable Charging
SGM41524C	1	5.67	4.2 ~ 4.5	3.5	5.5	300 ~ 2300	15	Yes	<1.4	TDFN-2x3-8BL	Compact Switch Li+/Poly Battery Charger Safe and Reliable Charging
SGM41526	2 to 4	Adj	8.4,12.6,16.8	4.5	22	0 ~ 4000	1300	Yes	18	TQFN-5.5x3.5-24L	2-4 Cells Stand-Alone Battery Charger with Integrated MOSFETs and Power Path Selector
SGM41527	1 to 4	Adj	Adj	4.5	22	0 ~ 4000	1300	Yes	18	TQFN-5.5x3.5-24L	1-4 Cells Stand-Alone Battery Charger with Integrated MOSFETs and Power Path Selector
SGM41528	2	6.4	6.8 ~ 9.2	3.9	6.2	0 ~ 2200	14.5	Yes	14	WLCSP-2.1x2.1-25B	I ² C Controlled 2A, 2-Cell Battery Charger with Boost Mode for USB Input
SGM41536	1	22.4	3.4 ~ 18	4.1	22	0 ~ 3000	3 @ 9V	Yes	<1	TQFN-3x3-16L	Standalone 22V, 3A 1-4 Cell Buck Battery Charger
SGM41542	1	6.5,10.5,14	3.856 ~ 4.624	3.9	13.5	0 ~ 3780	55	Yes	15	TQFN-4x4-24L	3.78A Single-Cell Battery Charger with Power Path Management
SGM41543	1	6.5,10.5,14	3.856 ~ 4.624	3.9	13.5	0 ~ 3780	50	Yes	15	TQFN-4x4-24L	3.78A Single-Cell Battery Charger with Power Path Management
SGM41570	1 to 4	26	1.024 ~ 19.2	3.58	24	0 ~ 8128 (for 10mΩ Sense Resistor)		Yes		TQFN-4x4-32AL	SMBus Narrow VDC Buck-Boost Battery Charge Controller
SGM41573	1 to 4	26	1.024 ~ 19.2	3.58	24	0 ~ 8128 (for 10mΩ Sense Resistor)		Yes		TQFN-4x4-32AL	I ² C Narrow VDC Buck-Boost Battery Charge Controller

Switched Cap Chargers

Part Number	Number of Series Cells	Input Over-Voltage Protection Threshold (V)	Charge Voltage (V)	V _{IN} Min (V)	V _{IN} Max (V)	Programmable Current (mA)	Shutdown Current From V _{IN} (µA)	Status Indication	Package	Features
SGM41600	1	Adj (Default 12)	3 ~ 5.5	3.3	11.5	0 ~ 6000		No	WLCSP-2.6x2.6-36B	I ² C Controlled 6A Single-Cell Switched-Capacitor Fast Charger with Bypass Mode and ADC
SGM41600A	1	Adj (Default 12)		3.3	11.5	0 ~ 8000		Yes	WLCSP-2.8x2.8-36B	I ² C Controlled 8A Single-Cell Switched-Capacitor Charger with Bypass Mode
SGM41603	2	Adj (Default 9.5)/Adj (Default 5.3)	2.4 ~ 5.5	2.8	11	0 ~ 10000	6.7	Yes	WLCSP-2.85x2.59-42B	I ² C Controlled 10A Bidirectional Switched-Capacitor Converter

LED Backlight Drivers

The White LED Driver family offers various solutions for LCD backlighting in portable device applications. The devices operate from 2.5V to 24V input supply range and deliver an output voltage up to 38V with up to 8 channels in parallel and up to 10 LEDs in series.

Channels per Package	Part Number	V _{IN} Min (V)	V _{IN} Max (V)	LEDs per String	Shutdown Current (µA)	Switching Frequency (MHz)	LED Connection Type	Quiescent Current (mA)	Dimming Method	Package	Features
1	SGM3110	2.7	5	1	<1	0.75	Common Anode	0.06	PWM	SOT-23-6	1P Charge Pump LED Driver
4	SGM3122	2.7	5.5	1	<1	1	Common Anode	0.1	PWM	TQFN-3×3-16L	4P Charge Pump LED Driver
3	SGM3124	2.7	5.5	1	<1	1	Common Anode	0.1	PWM	TQFN-3×3-16L	3P Charge Pump LED Driver
4	SGM3127	2.5	5.5	1	<1		Common Anode	0.24	PWM	SOT-23-6	4P Low Dropout LED Driver
4	SGM3131	2.7	5.5	1	<1	1	Common Anode	0.1	One-Wire	TQFN-3×3-16L	4P Charge Pump LED Driver
4	SGM3132	2.5	5	1	<5		Common Anode	0.55	One-Wire	TQFN-3×3-16L,TDFN-2×2-8L,MSOP-8	4P Ultra Low Dropout LED Driver
3	SGM31323	2.5	5.5	1	<1		Common Anode	0.041	I ² C	UTDFN-1.5×1.5-8L	I ² C Programmable RGB LED Driver
3	SGM31324	2.5	5.5	1	<1		Common Anode	0.041	I ² C	UTDFN-1.5×1.5-8L	I ² C Programmable RGB LED Driver with Auto Blink Mode
4	SGM3133	2.7	5.5	1	<10	1	Common Cathode	0.3	One-Wire	TQFN-3×3-16L	4P Charge Pump LED Driver
6	SGM3138	2.7	5.5	1	<1	1	Common Anode	0.21	One-Wire	TQFN-3×3-16L	6P Charge Pump LED Driver
6	SGM3139B	2.5	5	1	<5		Common Anode	0.72	One-Wire	TQFN-3×3-16L	6P Ultra Low Dropout LED Driver
6	SGM3142	2.7	5.5	1	<10	1	Common Cathode	0.3	One-Wire	TQFN-4×4-16L	6P Charge Pump LED Driver
6	SGM3144	2.7	5.5	1	<2.5 @ V _{IN} = 4.2V	0.93	Common Anode	0.155	PWM	TQFN-3×3-16L	6P Charge Pump LED Driver
8	SGM3145	2.7	5.5	1	<2.5 @ V _{IN} = 4.2V	0.93	Common Anode	0.155	PWM	TQFN-3×3-20L	8P Charge Pump LED Driver
8	SGM3146	2.7	5.5	1	<2.5 @ V _{IN} = 4.2V	0.93	Common Anode	0.155	One-Wire	TQFN-3×3-20L	8P Charge Pump LED Driver
1	SGM3720	2.7	5.5	10	<1	0.6	Common Anode	0.2	PWM	TSOT-23-6	600kHz, 10 LEDs per String
1	SGM3725	2.7	5.5	10	<1	1.1	Common Anode	0.2	One-Wire	TSOT-23-6	1.1MHz, 10 LEDs per String
1	SGM3726	3	20	10	<1	1.25	Common Anode	0.4	PWM	TDFN-2×2-6L,TSOT-23-6	1.25MHz, 10 LEDs per String, 20V Input
1	SGM3727	2.8	5	10	<1		Common Anode	0.045	One-Wire	TDFN-2×2-8L	10 LEDs per String
1	SGM3732	2.7	5.5	10	<1	1.1	Common Anode	0.2	PWM	TSOT-23-6	10 LEDs per String
1	SGM3733B	2.7	20	10	<1	0.65	Common Anode	0.4	PWM	TDFN-2×2-6L,TSOT-23-6	650kHz, 10 LEDs per String, 20V Input
1	SGM3735	2.7	5.5	10	<1	1	Common Anode	0.2	One-Wire	TDFN-2×2-8L	10 LEDs per String
1	SGM3736	2.7	5.5	10	<1	1.1	Common Anode	0.2	PWM	TDFN-2×2-8L	10 LEDs per String
2	SGM3738	3	18	10	<1	0.6	Common Anode	0.24	PWM & One-Wire	TQFN-3×3-16L	2 Feedback Channels, 18V Input, Serial LED Driver
3	SGM3740	3	18	10	<1	0.6	Common Anode	0.24	PWM & One-Wire	TQFN-3×3-16L	3 Feedback Channels, 18V Input, Serial LED Driver
4	SGM3740B	3	18	10	<1	0.6	Common Anode	0.24	PWM & One-Wire	TQFN-3×3-16L	4 Feedback Channels, 18V Input, Serial LED Driver
3	SGM3741	3	18	10	<1	0.6	Common Anode	0.24	PWM & PWM	TQFN-3×3-16L	3 Feedback Channels, 18V Input, Serial LED Driver
4	SGM3741B	3	18	10	<1	0.6	Common Anode	0.24	PWM & PWM	TQFN-3×3-16L	4 Feedback Channels, 18V Input, Serial LED Driver
2	SGM3743	3	18	10	<1	1.2	Common Anode	1.2	PWM & One-Wire	WLCSP-1.32×1.32-9B	2 Feedback Channels, 18V Input, Serial LED Driver
1	SGM3747	2.7	5.5	10	<1	1.1	Common Anode	0.2	PWM	TSOT-23-6	1:500 High Performance, 10 LEDs per String
1	SGM3748	2.7	5.5	10	<1	1.1	Common Anode	0.2	PWM	TDFN-2×2-8L	1:500 High Performance, 10 LEDs per String
1	SGM3749	3	20	10	<1	1.25	Common Anode	0.4	PWM	TDFN-2×2-6L,TSOT-23-6	1:500 High Performance, 10 LEDs per String, 20V Input
1	SGM3750	2.7	20	10	<1	0.65	Common Anode	0.4	PWM	TDFN-2×2-6L,TSOT-23-6	1:500 High Performance, 10 LEDs per String, 20V Input
1	SGM3752	2.7	5.5	10	<1	1.2	Common Anode	0.2	PWM	TSOT-23-6	1:250 High Performance, 10 LEDs per String
1	SGM3753	2.7	5.5	10	<1	0.6	Common Anode	0.2	PWM	TDFN-2×2-6L	1:250 High Performance, 10 LEDs per String

LED Backlight Drivers

Channels per Package	Part Number	V _{IN} Min (V)	V _{IN} Max (V)	LEDs per String	Shutdown Current (µA)	Switching Frequency (MHz)	LED Connection Type	Quiescent Current (mA)	Dimming Method	Package	Features
1	SGM3755	2.7	5.5	10	<1	0.6	Common Anode	0.2	PWM	TSOT-23-6	1:350 High Performance, 10 LEDs per String
1	SGM3756	2.7	5.5	10	<1	1.2	Common Anode	0.2	PWM	TDFN-2x2-6L	1:250 High Performance, 10 LEDs per String
1	SGM3757	2.7	5.5	10	<1	1.2	Common Anode	0.2	PWM	TDFN-2x2-8L	1:250 High Performance, 10 LEDs per String
1	SGM3758	2.7	5.5	7	<1	1.2	Common Anode	0.2	PWM	TDFN-2x2-6L	1:500 High Performance, Screen Flash Mode Support
1	SGM3759	2.7	5.5	7	<1	1.2	Common Anode	0.2	PWM	TSOT-23-6	1:500 High Performance, Screen Flash Mode Support
2	SGM3760	2.7	5.5	10	<1	1.15	Common Anode	1.7	PWM	WLCSP-1.32x1.32-9B	2 Feedback Channels, Serial LED Driver
3	SGM37603	3	24	8	<1.5	1.2	Common Anode	0.66	PWM & I ² C	WLCSP-1.78x1.36-12B,TDFN-3x3-12L	11-Bit, 3 Feedback Channels, 24V Input, Serial LED Driver
3	SGM37603A	3	24	8	<1.5	1.2	Common Anode	0.66	PWM & I ² C	WLCSP-1.78x1.36-12B,TDFN-3x3-12L	12-Bit, 3 Feedback Channels, 24V Input, Serial LED Driver
4	SGM37604A	3	24	8	<1.5	1.2	Common Anode	0.66	PWM & I ² C	WLCSP-1.78x1.36-12B,TDFN-3x3-12L	12-Bit, 4 Feedback Channels, 24V Input, Serial LED Driver
1	SGM3766	2.7	5.5	10	<1	1.2	Common Anode	0.2	PWM	TSOT-23-5	1:500 High Performance, 10 LEDs per String

LED Flash Drivers

The Flash LED Driver family provides high efficiency LED driving power needed by cameras in smart phone and tablet applications. The configurations include a single LED or dual LEDs with current source options from 500mA to 2A, high switching frequency for smaller inductors, I²C interface, and ultra compact packages.

Channels per Package	Part Number	Output Current per Channel (mA)	V _{IN} Min (V)	V _{IN} Max (V)	Shutdown Current (µA)	Switching Frequency (MHz)	Quiescent Current (mA)	Package	Features
1	SGM3140	500	2.7	5.5	<1	2.2	3	TDFN-3x3-10L	Inductor Free
1	SGM3140B	500	2.7	5.5	<1	2.2	3	TDFN-3x3-10L	Inductor Free
1	SGM3141	700	2.7	5.5	<1	2.2	3	TDFN-3x3-10L	Inductor Free
1	SGM3141B	700	2.7	5.5	<1	2.2	3	TDFN-3x3-10L	Inductor Free
2	SGM3780	750	3	5	<1	2	0.45	TDFN-3x2-14L	High Efficiency, Dual Flash LED Outputs
2	SGM3781	750	3	5	<1	2	0.45	TDFN-3x2-14L	High Efficiency, Dual Flash LED Outputs
2	SGM3784	1100	2.7	5	<1	3/1.6	0.22	WLCSP-2x1.6-12B	Independent Control Dual Flash LED Outputs
2	SGM3785	750	3	5	<1	2	0.45	TDFN-3x2-14L	Flash Dimming Function
2	SGM3785S	1500 Total	3	5	<1	2	0.26	TDFN-3x2-14L	Flash Dimming Function
1	SGM37861	980	2.7	5.5	<1	4	0.7	TSOT-23-5	Tiny Inductor, One-Wire Interface
1	SGM37862	2000	2.7	5.5	<1	4	0.7	TSOT-23-5	Tiny Inductor, One-Wire Interface
1	SGM37891	720	2.7	5.5	<1			TSOT-23-6,UTDFN-1.5x2-6L	Inductor Free, One-Wire Interface
1	SGM37891A	1240	2.7	5.5	<1			TSOT-23-6,UTDFN-1.5x2-6L	Inductor Free, One-Wire Interface
1	SGM37892	720	2.7	5.5	<1			TSOT-23-6,UTDFN-1.5x2-6L	Inductor Free, One-Wire Interface
1	SGM37892A	1240	2.7	5.5	<1			TSOT-23-6,UTDFN-1.5x2-6L	Inductor Free, One-Wire Interface

LED Flash Drivers

Channels per Package	Part Number	Output Current per Channel (mA)	V _{IN} Min (V)	V _{IN} Max (V)	Shutdown Current (µA)	Switching Frequency (MHz)	Quiescent Current (mA)	Package	Features
1	SGM37893A	1260	2.7	5.5	<1			UTDFN-1.5×2-6L	Inductor Free, One-Wire Interface
2	SGM37895	1000	2.7	5.5	<1			TDFN-3×3-10L,UTQFN-2.6×1.8-10AL	Inductor Free, Support I ² C Bus
2	SGM37898	2000	2.7	5.5	<1			UTQFN-2.6×1.8-10AL	Inductor Free, Support I ² C Bus

Pattern Lighting Drivers

Channels per Package	Part Number	V _{IN} Min (V)	V _{IN} Max (V)	LEDs per String	Shutdown Current (µA)	LED Connection Type	Quiescent Current (mA)	Dimming Method	Package	Features
3	SGM31323	2.5	5.5	1	<1	Common Anode	0.041	I ² C	UTDFN-1.5×1.5-8L	I ² C Programmable RGB LED Driver
3	SGM31324	2.5	5.5	1	<1	Common Anode	0.041	I ² C	UTDFN-1.5×1.5-8L	I ² C Programmable RGB LED Driver with Auto Blink Mode

LCD Bias Supplies

DC/DC Topology	Part Number	Output Current Max (mA)	V _{IN} Min (V)	V _{IN} Max (V)	Output Voltage (V)	Switching Frequency (MHz)	Quiescent Current (µA)	Shutdown Current (µA)	Enable Logic	Efficiency Max	Package	Features
LCM Bias Power Supply	SGM3803	200	2.7	5.5	Adj (up to 5.2)	1.2/0.95	30	<1	Active High	0.9	TDFN-3×3-12L	P/N Voltage Output, 200mA Output Current Synchronous Boost
LCM Bias Power Supply	SGM3804	100	2.7	5.5	Adj (2.4 ~ 6.4)	1.6	400	<1	Active High	0.84	WLCSP-1.7×1.51-12B	P/N Voltage Output, 100mA Output Current Synchronous Boost

AMOLED Display Supplies

Part Number	EL Output Current Max (mA)	V _{IN} Min (V)	V _{IN} Max (V)	Output Channel Number (V)	Control Interface	Outputs	Package	Features
SGM38042	40	2.7	5.5	3	1-Wire	AVDD/ELVDD/ELVSS	WLCSP-1.51×2.10-15B	SIMO, Triple-Output, for Wearable Devices
SGM38042B	100	2.7	5.5	3	1-Wire	AVDD/ELVDD/ELVSS	WLCSP-1.51×2.10-15B	SIMO, Triple-Output, for Wearable Devices
SGM38045	70	2.7	4.8	3	1-Wire	AVDD/ELVDD/ELVSS	WLCSP-1.2×2.4-17B	Inductor-Less, Triple-Output, for Wearable Devices
SGM38046	100	2.7	5.5	3	1-Wire	AVDD/ELVDD/ELVSS	WLCSP-2×2-16B	Triple-Output, for Wearable Devices
SGM3833A	400	2.9	4.5	3	1-Wire	AVDD/ELVDD/ELVSS	TQFN-3×3-16L	Triple-Output, for Smart Phones
SGM3833B	400	2.9	4.5	3	1-Wire	AVDD/ELVDD/ELVSS	TQFN-3×3-16L	Triple-Output, for Smart Phones
SGM3851A	400	2.9	4.5	3	1-Wire	AVDD/ELVDD/ELVSS	TQFN-3×3-16L	Triple-Output, for Smart Phones
SGM3836A	600	2.9	4.5	3	1-Wire	AVDD/ELVDD/ELVSS	TQFN-3×3-16L	Triple-Output, for Smart Phones
SGM3837	600	2.9	5.0	3	1-Wire	AVDD/ELVDD/ELVSS	WLCSP-2.0×2.0-25B	Triple-Output, for Smart Phones
SGM3838	700	2.5	4.8	3	1-Wire	AVDD/ELVDD/ELVSS	WLCSP-2.5×2.5-36B	Triple-Output, for Smart Phones & PADs
SGM3839	1200	2.5	4.8	3	1-Wire	AVDD/ELVDD/ELVSS	WLCSP-2.90×2.96-49B	Triple-Output, for Smart Phones & PADs
SGM3842	1000	2.9	4.8	4	1-Wire	AVDD/ELVDD/ELVSS/DVDD	WLCSP-2.5×2.9-42B	Four-Output, for Tandem AMOLED Display Smart Phones & PADs
SGM3843	1200	2.9	5.0	6	I ² C	AVDD/ELVDD/ELVSS/DVDD/VGL/VGL_LDO	WLCSP-3.3×3.3-64B	Six-Output, for Smart Phones & PADs
SGM3843A	1200	2.9	5.0	6	1-Wire	AVDD/ELVDD/ELVSS/DVDD/VGL/VGL_LDO	WLCSP-3.3×3.3-64B	Six-Output, for Smart Phones & PADs

Buck Converters

DC/DC Topology	Part Number	Output Current	V_{IN}	V_{IN}	Output Voltage (V)	Switching Frequency (MHz)	Quiescent Current (μA)	Shutdown Current (μA)	Enable Logic	Efficiency Max	Package	Features
		Max (mA)	Min (V)	Max (V)								
Sync Buck	AAP6010A	3500	7.5	40	Adj	0.125	1560	NA	NA	0.95	SOIC-8	7.5V to 40V Input Supply, CC/CV Synchronous Buck Converter
Sync Buck	AAP6011A	3500	7.5	40	Adj	0.125	1560	NA	NA	0.95	SOIC-8 (Exposed Pad)	7.5V to 40V Input Supply, CC/CV Synchronous Buck Converter
Sync Buck	AAP6013A	8000	7.5	36	Adj	Adj (0.05 ~ 0.8)	1200	1200	NA	0.97	TQFN-4x4-24BL	7.5V to 36V Input Supply, CC/CV Synchronous Buck PWM Converter
Sync Buck	AAP6153A	NA	7.5	40	Adj	Adj (0.1 ~ 0.8)	1200	1700	NA	0.97	MSOP-10 (Exposed Pad)	7.5V to 40V Input Supply, CC/CV Synchronous Buck PWM Converter
Sync Buck	SGM6010	3000	3	5.5	Adj (0.8 ~ 5.0)	0.3 ~ 2	410	<2	Active Low	0.95	TDFN-3x3-10L	3A, High Efficiency, Low Voltage, Synchronous Buck
Sync Buck	SGM6011	2000	2.5	5.5	3.3/Adj (down to 1.2)	1.4	300	<2	Active High	0.95	TDFN-3x3-10L	2A, High Efficiency, Low Voltage, Synchronous Buck
Sync Buck	SGM6012	800	2.5	5.5	1.2/1.8/3.3/Adj (down to 0.6)	1.6	30	<1	Active High	0.95	TSOT-23-5	600mA, High Efficiency, Low Voltage, Synchronous Buck
Sync Buck	SGM6013	800	2.5	5.5	1.2/1.8/3.3/Adj (down to 0.6)	1.6	30	<1	Active High	0.95	TSOT-23-5,TDFN-2x2-6L	600mA, High Efficiency, Low Voltage, Synchronous Buck
Sync Buck	SGM6014	2000	2.5	5.5	1.2/1.8/3.3/Adj (down to 1.2)	1.4	55	<2	Active High	0.95	TDFN-3x3-10L	2A, High Efficiency, Low Voltage, Synchronous Buck
Sync Buck	SGM6016	1200	2.7	5.5	Adj (down to 0.8)	1.6	30	<1	Active High	0.95	TDFN-3x3-10L	1.2A, High Efficiency, Low Voltage, Synchronous Buck
Sync Buck	SGM6019	1200	2.7	5.5	Adj (down to 0.8)	1.6	30	<1	Active High	0.95	TDFN-2x3-8L	1.2A, High Efficiency, Low Voltage, Synchronous Buck
Sync Buck	SGM6021	200	1.8	5.5	Adj	1.4	0.4	<1	Active High	0.9	UTDFN-1.5x2-6L	1.4MHz, 200mA Synchronous Buck
Sync Buck	SGM6022	600	2.5	5.5	Adj	6	22	<1	Active High	0.9	TDFN-2x2-6L	6MHz, 600mA Synchronous Buck
Sync Buck	SGM6027	600	2.5	5.5	Adj (0.7 ~ 3.3)	1.2	0.58	0.01	Active High	0.92	WLCSP-0.8x1.6-8B	Ultra-Low Quiescent Current, Synchronous Buck
Sync Buck	SGM6027A/B	600	2.5	5.5	Adj (0.7 ~ 3.3)	1.2	0.58	0.01	Active High	0.92	WLCSP-0.8x1.6-8B	Ultra-Low Quiescent Current, Synchronous Buck
Sync Buck	SGM6029	1000	1.95	5.5	0.4 ~ 0.775/0.8 ~ 1.55/1.8 ~ 3.3	4.0/1.5	2.3	0.12	Active High	0.96	WLCSP-0.74x1.09-6B	Ultra-Low Quiescent Current, Synchronous Buck
Sync Buck	SGM6031	200	1.8	5.5	1.0/1.2/1.5/1.8/2.5/2.8/3.0/3.3/Adj (1.0 ~ 3.3)	1.4	0.4	<1	Active High	0.9	UTDFN-1.5x2-6L,WLCSP-0.90x0.88-5B	1.4MHz, 200mA Synchronous Buck
Sync Buck	SGM6032	600	2.5	5.5	0.6/0.8/1.0/1.1/1.15/1.2/1.5/1.6/1.8/2.5/2.8/3.0/3.3	6	22	<1	Active High	0.9	TDFN-2x2-6L,WLCSP-1.21x0.81-6B	6MHz, 600mA Synchronous Buck
Sync Buck	SGM6033	1000	2.5	5.5	Adj	4.6	26	<1	Active High	0.9	TDFN-2x2-6L,WLCSP-1.21x0.81-6B	4.6MHz, 1A, Synchronous Buck
Sync Buck	SGM6036	600	1.8	5.5	1.0/1.2/3.3/Adj (1.0 ~ 3.3)	1.4	0.45		Active High	0.9	UTDFN-1.5x2-6L	Ultra Low Power Buck Converters with up to 600mA Output Current
Non-Sync Buck	SGM6061	1500	3.8	55	Adj (0.8 ~ 24)	2	131	18	Active High	0.95	TDFN-3x3-10L	1.5A, 2MHz, 55V, Buck Converter
Sync Buck	SGM61012	1200	2.3	5.5	Adj (0.5 ~ 4)	2	25	0.01	Active High	0.95	TDFN-2x2-8AL	1.2A High-Efficiency Buck with AHP-COT Mode
Sync Buck	SGM61013	1000	2.3	5.5	1.2/1.8/3.3	10, 6.5/8	20	0.1	Active High	0.95	WLCSP-0.9x1.2-6B	10MHz 1A Micro-Point-of-Load Buck
Sync Buck	SGM61020	2000	2.5	5.5	Adj (0.6 ~ V_{IN})	1.5	42	0.03	Active High	0.95	SOT-23-5,SOT-563-6	2A, High Efficiency, Synchronous Buck
Sync Buck	SGM61022	2000	2.3	5.5	Adj (0.5 ~ 4)	2	25	0.01	Active High	0.95	TDFN-2x2-8AL	2A High-Efficiency Buck with AHP-COT Mode
Sync Buck	SGM61030A/B	3000	2.5	5.5	Adj (0.6 ~ V_{IN})	2.5/2	42/410	0.05	Active High	0.95	TDFN-2x2-7L	High Efficiency, 3A, Synchronous Buck
Sync Buck	SGM61031	3000	2.7	5.5	Adj	2	24	0.01	Active High	0.95	TDFN-2x2-8AL	3A, High Efficiency, Synchronous Buck
Sync Buck	SGM61032A/B	3000	2.5	5.5	Adj (0.6 ~ V_{IN})	1.5	45	0.02	Active High	0.95	SOT-563-6	Low Voltage, 3A High Efficiency Synchronous Buck
Sync Buck	SGM61040A/B	4000	2.5	5.5	Adj (0.6 ~ V_{IN})	2.5/2	42/420	0.06	Active High	0.95	TDFN-2x2-7L	4A, High Efficiency, Synchronous Buck
Sync Buck	SGM61130	4000	4.5	18	Adj (0.8 ~ 5)	0.2 to 2	1100	3.4	Active High	0.95	TQFN-3.5x3.5-14L	4.5V to 18V Input, 4A, Synchronous Buck
Sync Buck	SGM61133	3000	4.5	17	Adj	0.7	200	7	Active High	0.95	SOT-563-6	3A, High Efficiency, 17V Voltage, Synchronous Buck
Sync Buck	SGM61133A	3000	4.5	17	Adj	0.7	200	7	Active High	0.93	SOT-23-6	3A Switch, Internal MOSFET, High Efficiency, Synchronous Buck
Sync Buck	SGM61163	6000	4.5	18	Adj	0.2 to 2	1100	3.3	Active High	0.95	TQFN-3.5x3.5-14L	4.5V to 18V Input, 6A, Synchronous Buck
Sync Buck	SGM61164	6000	4.5	18	Adj	0.2 to 2	1100	3.3	Active High	0.95	TQFN-3.5x3.5-14L	4.5V to 18V Input, 6A, Synchronous Buck
Sync Buck	SGM61220	2000	4.5	28	Adj	0.41	25	2	Active High	0.95	TSOT-23-6	4.5V to 28V Input, 2A Output, Synchronous Buck
Sync Buck	SGM61230	3000	4.5	28	Adj	0.41	25	2	Active High	0.95	TSOT-23-6	4.5V to 28V Input, 3A Output, Synchronous Buck
Non-Sync Buck	SGM61234	2000	6.5	28	5	0.05 to 1.1	105			0.95	SOIC-8 (Exposed Pad)	28V, 2A, 5V Fixed Output, Non-Synchronous Buck

Buck Converters

DC/DC Topology	Part Number	Output Current Max (mA)	V _{IN} Min (V)	V _{IN} Max (V)	Output Voltage (V)	Switching Frequency (MHz)	Quiescent Current (µA)	Shutdown Current (µA)	Enable Logic	Efficiency Max	Package	Features
Non-Sync Buck	SGM6130	3000	4.5	28.5	Adj (0.8 ~ 25)	0.385	800	<18	Active High	0.94	SOIC-8 (Exposed Pad)	3A, 28.5V Input, Non-Synchronous Buck
Non-Sync Buck	SGM6132	3000	4.5	28.5	Adj (0.8 ~ 22)	1.4	800	<18	Active High	0.91	SOIC-8 (Exposed Pad)	3A, 28.5V Input, Non-Synchronous Buck
Sync Buck	SGM61410	600	5	42	Adj (0.8 ~ 24)	1.2	14	<1.2	Active High	0.95	SOT-23-6	1.2MHz, 600mA, 42V, Synchronous Buck
Sync Buck	SGM61411	600	5	42	Adj (0.8 ~ 20)	0.15		0.6	Active High	0.95	SOT-23-6	150kHz, 600mA, 42V, Synchronous Buck
Sync Buck	SGM61412A	1200	4.5	42	Adj (0.83 ~ 20)	1.2	55	1.2	Active High	0.96	TSOT-23-6	1.2MHz, 1.2A, 42V, Synchronous Buck
Sync Buck	SGM61413	600	5	42	Adj (0.8 ~ 20)	0.56	14	0.6	Active High	0.95	SOT-23-6	570kHz, 600mA, 42V, Synchronous Buck
Non-Sync Buck	SGM61433	3500	4.5	42	Adj (0.8 ~ 36)	0.1 to 2.5	148	2.6	Active High		SOIC-8 (Exposed Pad)	4.5V to 42V Input, 3.5A Non-Synchronous Buck
Non-Sync Buck	SGM61450	5000	4.5	42	Adj (0.8 ~ 36)	0.1 to 2.5	148	2.75	Active High		SOIC-8 (Exposed Pad)	4.5V to 42V Input, 5A Non-Synchronous Buck
Non-Sync Buck	SGM6230	2000	4.5	38	Adj (0.8 ~ 32)	0.385	800	<18	Active High	0.94	SOIC-8 (Exposed Pad)	2A, 38V Input, Non-Synchronous Buck
Non-Sync Buck	SGM6232	2000	4.5	38	Adj (0.8 ~ 28)	1.4	800	<18	Active High	0.91	SOIC-8 (Exposed Pad)	2A, 38V Input, Non-Synchronous Buck
Non-Sync Buck	SGM6332	3000	4.5	18	Adj (0.8 ~ 14)	1.4	800	<18	Active High	0.91	SOIC-8 (Exposed Pad)	3A, 18V Input, Non-Synchronous Buck

Switch Mode Power ICs

Boost Converters

DC/DC Topology	Part Number	Switch Current Limit Typ (A)	V _{IN} Min (V)	V _{IN} Max (V)	Output Voltage (V)	Switching Frequency (MHz)	Quiescent Current (µA)	Shutdown Current (µA)	Enable Logic	Efficiency Max	Package	Features
Non-Sync Boost	SGM6601	0.4	1.8	5.5	Adj (up to 38)	Up to 1	20	<1	Active High	0.85	TSOT-23-5,TDFN-2x2-6L	400mA Switch, Internal MOSFET, High Voltage Non-Synchronous Boost
Sync Boost	SGM6602	0.9	1.8	5.5	Adj (4.5 ~ 20)	1.1	41	<1	Active High	0.85	WLCSP-0.8x1.2-6B,TDFN-2x2-6L	20V Output, Synchronous Boost
Sync Boost	SGM6603	1.1	0.9	5.5	3.3/5.0/Adj (up to 5.5)	1.2	30	<1	Active High	0.9	SOT-23-6	0.9V Input, Synchronous Boost
Sync Boost	SGM6603A	1.1	0.9	5.5	Adj (up to 5.5)	1.2	280	<0.5	Active High	0.9	SOT-23-6	0.9V Input, Synchronous Boost
Sync Boost	SGM6605	1.1	2.7	5.5	5.0/Adj (up to 5.2)	1.2	30	<1	Active High	0.9	SOT-23-6	1.1A Switch, Internal MOSFET, High Efficiency, Synchronous Boost
Sync Boost	SGM66051	2.7	2.2	5.5	5.1/5.4/Adj (up to 5.5)	1.1	20	<1	Active High	0.9	TSOT-23-6	2.7A Switch, Internal MOSFET, High Efficiency, Synchronous Boost
Sync Boost	SGM66052	2.7	2.2	5.2	5.1/Adj (up to 5.2)	1.1	20	<1	Active High	0.9	UTDFN-2x1.5-6L	2.7A Switch, Internal MOSFET, High Efficiency, Synchronous Boost
Sync Boost	SGM66055	4	2.5	4.5	4.5/5.0/5.4	2.2	23	<1	Active High	0.93	WLCSP-1.21x1.21-9B,TDFN-2x3-8BL	4A Switch, Internal MOSFET, High Efficiency, Synchronous Boost
Sync Boost	SGM66055A	3	2.5	4.5	5.0/5.4	2.2	23	<2.5	Active High	0.93	WLCSP-1.21x1.21-9B	3A Switch, Internal MOSFET, High Efficiency, Synchronous Boost
Sync Boost	SGM66056	2.5	2.5	4.5	5.0	2.2	34	<1	Active High	0.93	WLCSP-1.21x1.21-9B	2.5A Switch, Internal MOSFET, High Efficiency, Synchronous Boost
Sync Boost	SGM6606		2.4	5	Adj (3.0 ~ 5.0)	0.66	55	<2	Active High	0.95	TDFN-3x3-14L	5V/2.5A, Internal MOSFET, High Efficiency, Synchronous Boost
Non-Sync Boost	SGM6607A	1.2	3	20	Adj (up to 38)	1.2	400	<1	Active High	0.93	TDFN-2x2-6L,TSOT-23-6	1.2A Switch, Internal MOSFET, High Voltage Non-Synchronous Boost
Sync Boost	SGM6608	Up to 4	2.4	5	Adj (3.0 ~ 5.0)	0.66	55	<1	Active High	0.95	TDFN-3x3-12L	2.5A, 660kHz, Internal MOSFET, High Efficiency, Synchronous Boost
Sync Boost	SGM6609	0.5 ~ 3.5	2.4	5	Adj (3.0 ~ 5.0)	1.2	50	<1	Active High	0.95	TDFN-3x3-12L	2.5A, 1.2MHz, High Efficiency, Sync-Boost with Adjustable Current Limit
Sync Boost	SGM66099	1.3	0.9	5.2	2.5/3.0/3.3/3.6/4.5/5.0/Adj (2.5 ~ 5.2)	1.2	0.65	<1	Active High	0.93	WLCSP-1.22x0.83-6B,TDFN-2x2-6AL	Synchronous Boost Converter with Ultra Low Quiescent Current
Sync Boost	SGM66099B	1.3	1.15	5.2	5.0/Adj (2.5 ~ 5.2)	1.2	1.75	<1	Active High	0.93	WLCSP-1.22x0.83-6B,TDFN-2x2-6AL	Synchronous Boost Converter with Ultra Low Quiescent Current
Sync Boost	SGM66099C	1.16	1.5	5.2	Adj (2.5 ~ 5.5)	1.2	1.7	0.1	Active High	0.93	WLCSP-1.3x0.83-6B,TDFN-2x2-6AL	Synchronous Boost with Ultra-Low Quiescent Current
Sync Boost	SGM6610	10	2.7	12	Adj (4.5 ~ 12.6)	0.5	80	<1.2	Active High	0.91	TQFN-4.5x3.5-20L	10A, Fully-Integrated, Synchronous Boost
Sync Boost	SGM6611	7	2.7	12	Adj (4.5 ~ 12.6)	0.2 to 2.2	90	<1.1	Active High	0.9	TQFN-2x2.5-11L	7A, Fully-Integrated, Synchronous Boost

Boost Converters

DC/DC Topology	Part Number	Switch Current Limit Typ	V _{IN} Min	V _{IN} Max	Output Voltage (V)	Switching Frequency (MHz)	Quiescent Current (μA)	Shutdown Current (μA)	Enable Logic	Efficiency Max	Package	Features
Sync Boost	SGM6611C	7	2.7	12	Adj (4.5 ~ 12.6)	1.1	90	<1.1	Active High	0.9	TQFN-2x2.5-11L	7A, Fully-Integrated, Synchronous Boost
Sync Boost	SGM6612A	10	2.7	16	Adj (4.5 ~ 20)	2.2	125	<3	Active High	0.95	TQFN-3x3.5-13L	10A, Fully-Integrated, Synchronous Boost
Sync Boost	SGM6613A	7	4.5	22	Adj ((V _{IN} + 5) ~ 28.5)	0.7	150	<3	Active High	0.9	TQFN-3x3.5-13L	28.5V, 7A Fully-Integrated, Synchronous Boost
Sync Boost	SGM6614	15	2.17	18	Adj (4.5 ~ 18)	0.5	85	<1.5	Active High	0.94	TQFN-3x2.5-11L	18V Output, 15A, Fully Integrated, Synchronous Boost
Non-Sync Boost	SGM6623	4.4	0.8	12	Adj (3.3 ~ 13)	0.6	47	<1	Active High	0.9	SOT-23-6	4.4A, Miniature Boost Converter

Buck-Boost Converters

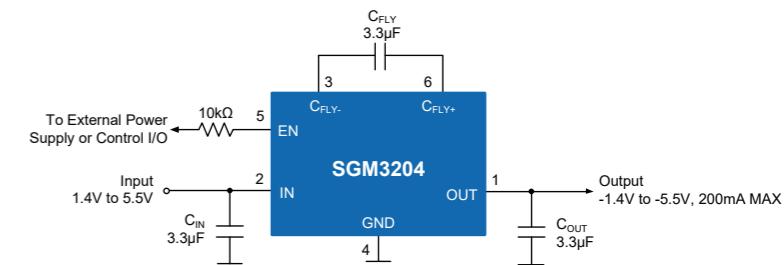
DC/DC Topology	Part Number	Output Current Max	Switch Current Limit Typ	V _{IN} Min	V _{IN} Max	Output Voltage (V)	Switching Frequency (MHz)	Quiescent Current (μA)	Shutdown Current (μA)	Enable Logic	Efficiency Max	Package	Features
Sync Buck-Boost	SGM62110	2.5	5.4	2.2	5.5	Adj (1.8 ~ 5.2)	3	18	0.1	Active High	0.95	WLCSP-2.21x1.40-15B	2.5A Buck-Boost Converter with I ² C Interface
Sync Buck-Boost	SGM62111	2.5	5.4	2.2	5.5	Adj (1.8 ~ 5.2)	3	18	0.1	Active High	0.95	WLCSP-2.21x1.40-15B	2.5A Buck-Boost Converter with I ² C Interface
Sync Buck-Boost	SGM62112	0.8	1.8	1.8	5.5	3.3/Adj (1.2 ~ 5.5)	1.4	40	0.1	Active High	0.96	TDFN-3x3-10L	Current Single Inductor Buck-Boost Converter with 1.8A Switch
Sync Buck-Boost	SGM62115	0.5	1	1.8	5.5	3.3/Adj (2.5 ~ 5.5)	2.4	43	0.1	Active High	0.95	WLCSP-1.22x1.62-12B,TQFN-2.5x2.5-12L	Single Inductor Buck-Boost Converter with 1A Switch and Adjustable Soft-Start
Sync Buck-Boost	SGM62116	0.4	1	1.8	5.5	Adj (1.2 ~ 5.5)	2.4	50	0.1	Active High	0.95	WLCSP-1.11x1.84-8B	High-Efficiency Buck-Boost Converter
Sync Buck-Boost	SGM62117	2	5	2.2	5.5	Adj (1.8 ~ 5.2)	3	18	0.1	Active High	0.95	TDFN-3x2-10L	High-Efficiency Buck-Boost Converter
Sync Buck-Boost	SGM62118	2	5	2.2	5.5	Adj (1.8 ~ 5.2)	3	18	0.1	Active High	0.95	WLCSP-2.21x1.4-15B	High-Efficiency Buck-Boost Converter

Inverting Converters

Part Number	Output Current Max (mA)	V _{IN} Min (V)	V _{IN} Max (V)	Output Voltage (V)	Switching Frequency (MHz)	Quiescent Current (μA)	Shutdown Current (μA)	Enable Logic	Efficiency Max	Package	Features
SGM660	2.8	5.5	Adj (-0.8 ~ -5.2)	1.8/1.6 (Default)/1.4	270	<1		Active High	0.8	WLCSP-0.9x1.3-6B	Buck-Boost Converter for Negative Output Voltage
SGM3204	200	1.4	5.5	-V _{IN}	0.95	1500	<1	Active High	0.8	SOT-23-6	Unregulated 200mA Charge Pump Voltage Inverter
SGM3206	60	1.4	5.5	-V _{IN}	0.047	115		None	0.85	SOT-23-5	Unregulated 60mA Charge Pump Voltage Inverter
SGM3207	60	1.4	5.5	-V _{IN}	0.019	72		None	0.85	SOT-23-5	Unregulated 60mA Charge Pump Voltage Inverter
SGM3209	100	3	18	-V _{IN}	0.12 ~ 1.25	900	<1.2	Active High	0.9	SOIC-8,TDFN-2x2-8L	Unregulated Inverter, Programmable Frequency, 100mA

Charge Pumps

Converters per Package	Part Number	Output Current		V _{IN} Min	V _{IN} Max	Output Voltage	Switching Frequency	Quiescent Current	Shutdown Current	Output Type	Package	Features
		Max (mA)	Shutdown	(V)	(V)	(V)	(kHz)	(μ A)	(μ A)			
1	SGM3110	100	Yes	2.7	5	5	750	60	<1	Regulated	SOT-23-6	Low Noise, Doubler/White LED Driver
2	SGM3200	500	Yes	2.7	5	5	1700	70	<2	Regulated	TDFN-3x3-8L	Low Noise, Doubler/White LED Driver
1	SGM3204	200	Yes	1.4	5.5	-V _{IN}	950	1500	<1	Unregulated	SOT-23-6	Unregulated Inverter, 950kHz, 200mA
1	SGM3206	60	No	1.4	5.5	-V _{IN}	47	115	NA	Unregulated	SOT-23-5	Unregulated Inverter, 47kHz, 60mA
1	SGM3207	60	No	1.4	5.5	-V _{IN}	19	72	NA	Unregulated	SOT-23-5	Unregulated Inverter, 19kHz, 60mA
1	SGM3209	100	Yes	3	18	-V _{IN}	120 ~ 1250	900	<1.2	Unregulated	SOIC-8,TDFN-2x2-8L	Unregulated Inverter, Programmable Frequency, 100mA
1	SGM3112	200	Yes	2.7	5.5	5	2200	66	<0.1	Regulated	TDFN-2x2-8AL	Low Noise, Load Disconnect, 2200kHz, 200mA



Switch Mode Power Controllers

DC/DC Topology	Part Number	V _{IN} Min (V)	V _{IN} Max (V)	Output Voltage (V)	Switching Frequency (MHz)	Quiescent Current (μ A)	Shutdown Current (μ A)	Enable Logic	Efficiency Max	Package	Features
Sync Buck	SGM63600	4.3	60	Adj (\leq 32)	Adj (0.1 ~ 1)	1035	1.5	Active High	0.95	TQFN-3x4-20L,TSSOP-20 (Exposed Pad)	Adjustable Frequency, External Frequency Sync, Hiccup Current Limit
Sync Buck	SGM64200	3	20	Adj (0.6 ~ 5.4)	Adj (0.1 ~ 1)	5200	170	Active High	0.9	TQFN-5x5-32AL	Enable, Frequency Synchronization, Multiple Outputs, Phase Interleaving, Power Good, Remote Sense

TEC Drivers

DC/DC Topology	Part Number	Output Current Max (mA)	V _{IN} Min (V)	V _{IN} Max (V)	Output Voltage (V)	Switching Frequency (MHz)	Quiescent Current (µA)	Shutdown Current (µA)	Enable Logic	Efficiency Max	Package	Features
TEC Driver	SGM41280	3000	2.2	4.9	3.35/3.45/3.63/3.85/4.25	2.5	10	<1	Active High	0.95	WLCSP-1.27×1.67-12B,TQFN-3×3-16L	Low Voltage, Wide Input Range, Front-End DC/DC
TEC Driver	SGM41281	10	2.8	5.5	Adj (up to 70)	0.85	1300	0.02	Active High	0.65	TQFN-3×3-16L	70V, 2.5mA Precision Protection APD Bias Dual-Gain Current Mirror with Output Enable
TEC Driver	SGM41282C	10	2.8	5.5	Adj (up to 70)	0.85	1300	<1	Active High	0.61	TQFN-3×3-16L	70V, 2.5mA Precision Protection APD Bias Dual-Gain Track/Hold Current Mirror
TEC Driver	SGM41283	10	2.7	5.5	Adj (up to 70)	0.85	200	<1	Active High	0.67	TQFN-3×3-16L	70V, Boost Converter and Current Monitor for APD Bias Applications
TEC Driver	SGM41285	10	2.8	5.5	Adj (up to 70)	0.85	190	<1	Active High	0.69	TQFN-3×3-16L	70V, 300mW Boost Converter and Current Monitor for APD Bias Applications
TEC Driver	SGM41286	500 [†]	7	14	14/19	0.022/1.41	60	<5.5	Active High	0.9	TDFN-3×3-8L,SOIC-8 (Exposed Pad)	LNB Supply with Tone Repeater/Synthesizer and Programmable Cable Drop Compensation

Note: [†] Typical Value @ 25°C

EML Bias ICs

Part Number	Output Current Max (mA)	V _{IN} Min (V)	V _{IN} Max (V)	Output Voltage (V)	Switching Frequency (MHz)	Quiescent Current (µA)	Package	Features
SGM41291	0 ~ 239.5	2.85	5.5	Adj (-0.2 ~ -4.08)	1	44	WLCSP-1.25×1.65-12B	Low Voltage, Wide Input Range, Front-End DC/DC
SGM41295	0 ~ 239.5	2.85	5.5	Adj (-0.2 ~ -3.2)	1.75	100	TQFN-3×3-16L	DC Bias Controller for EML

Combined Supplies

Part Number	Output Current Max (mA)	V _{IN} Min (V)	V _{IN} Max (V)	Output Voltage (V)	RBFET Current Limit (A)	Buck Mode Peak Current (A)	Boost Mode Peak Current (mA)	Switching Frequency (MHz)	Quiescent Current (µA)	Shutdown Current (µA)	Enable Logic	Efficiency Max	Package	Features
SGM38042	40	2.7	5.5	1.8 or 2.8/Adj (-2.4 ~ -6.4)/Adj (2.4 ~ 6.4)				1.6	500	<1	Active High	0.87	WLCSP-1.51×2.10-15B	SIMO, Triple-Output, for Wearable Devices
SGM38045	70	2.7	4.8	3.3V/Adj (-2.8 ~ -3.5)/Adj (2.8 ~ 3.5)				1	190	<1	Active High	0.88	WLCSP-1.2×2.4-17B	Inductor-Less, Triple-Output, for Wearable Devices
SGM38046	90	2.7	5.5	3.3V/Adj (-4 ~ -0.6)/Adj (2.8 ~ 4.6)				1.2	270	<1	Active High	0.8	WLCSP-2×2-16B	Triple-Output, for Wearable Devices
SGM41280	3000	2.2	4.9	Adj	6.5	6.5		2.5	10	<1	Active High	0.9	WLCSP-1.27×1.67-12B,TQFN-3×3-16L	Low Voltage, Wide Input Range, Front-End DC/DC
SGM41664		2.8	16	Adj	6.2	8.4	250	0.25 ~ 1.5	267	<2	Active High	0.9	TQFN-4×4-25L	I ² C Power Backup Manager with High Current Bidirectional DC/DC Converter and Capacitor Measurement Capability

Isolation Transformer Driver

Drivers per Package	Part Number	Output Power (W)	V _{CC} Range (V)	External Resistance (kΩ)	Input Frequency (kHz)	Logic Low Input Voltage (V)	Logic High Input Voltage (V)	I _{CC} Typ (mA)	Package	Features
1	SGM46000	3	2.5 ~ 5.5	5 ~ 390	200 ~ 2000	0.3	2	0.6	SOIC-8 (Exposed Pad),TDFN-2x3-8BL	3W Output Power, Programmable Oscillator Frequency Isolated Power Supply

Motor Drivers

Full Bridges per Package	Part Number	Motor Type	V _{CC} Min (V)	V _{CC} Max (V)	RMS Output Current (A)	Peak Output Current (A)	Control Interface	R _{DS(ON)} (HS+LS) per Channel (mΩ)	Operating Temperature Range (°C)	Package	Features
4 LS	SGM42403	Stepper Motor	8	50	1	2	EN/IN	340	-40 to +125	TSSOP-16 (Exposed Pad),SOIC-20	Quad Low-side Driver IC
1	SGM42500	Brushed DC Motor	7	40		3.6	PWM	410	-40 to +125	SOIC-8 (Exposed Pad)	3.6A Brushed DC Motor Driver
1	SGM42501	Brushed DC Motor	7	40		3.6	PH/EN	410	-40 to +125	SOIC-8 (Exposed Pad)	3.6A Brushed DC Motor Driver
1	SGM42505	Brushed DC Motor	7	40		3.6	PWM	410	-40 to +125	SOIC-8 (Exposed Pad)	3.6A Brushed DC Motor Driver
1	SGM42506	Brushed DC Motor	7	40		3.6	PH/EN	410	-40 to +125	SOIC-8 (Exposed Pad)	3.6A Brushed DC Motor Driver
1	SGM42507	Brushed DC Motor	1.9	7.5		1.5	PH/EN	555	-40 to +125	SC70-6,TSOT-23-6	1.5A, 7.5V H-Bridge Driver for Motor/Coil
1	SGM42512	Brushed DC Motor	1.9	5.5		1.5	PH/EN	545	-40 to +125	TSOT-23-6	Single H-Bridge Motor Driver
1	SGM42513	Brushed DC Motor	1.9	5.5		1.5	PWM	545	-40 to +125	TSOT-23-6	Single H-Bridge Motor Driver
1	SGM42540	Brushed DC Motor	8	45	3.5	5	PH/EN	210	-40 to +85	TSSOP-28 (Exposed Pad)	Single H-Bridge DC Motor Driver
2	SGM42541	Brushed DC/Stepper Motor	8	45		2.5	PWM	420	-40 to +85	TSSOP-28 (Exposed Pad)	Dual H-Bridge Driver IC
4 Half	SGM42544	Brushed DC/Stepper Motor	8	50	1.75	2.5	EN/IN	440	-40 to +125	TSSOP-28 (Exposed Pad)	Quad ½-H-Bridge Driver IC
3	SGM42553	Three-Phase Brushless DC Motor	7	45		3	EN/IN	400	-40 to +125	TSSOP-28 (Exposed Pad),TQFN-6×6-36AL	3A Triple Half-Bridge Motor Driver
3	SGM42560	Three-Phase Brushless DC Motor	3	18	2.5	5	PWM/EN	170	-40 to +125	TQFN-3×4-24L	18V, 2.5A Three-Phase Power Stage
3	SGM42561	Three-Phase Brushless DC Motor	3	18	2.5	5	HS/LS	170	-40 to +125	TQFN-3×4-24L	18V, 2.5A Three-Phase Power Stage
3	SGM42562	Three-Phase Brushless DC Motor	3	18	2.5	5	Hall-Signal	170	-40 to +125	TQFN-3×4-24L	18V, 2.5A Three-Phase Power Stage
2	SGM42600	Brushed DC/Stepper Motor	2.7	24	1.5	2	PWM	410	-40 to +125	TSSOP-16 (Exposed Pad),TQFN-4×4-16L	Dual H-Bridge Motor Driver
1	SGM42606	DC Motor	2	12	3	6	PWM	72	-40 to +85	TQFN-5.5×3.5-24L	H-Bridge IC
1	SGM42609	Brushed DC Motor	2.7	24	1.5	2	PWM	480	-40 to +125	MSOP-10,TDFN-3×3-10L	Single H-Bridge Motor Driver
2	SGM42610	Brushed DC/Stepper Motor	2.5	16	0.85	1.2	PWM	1540	-40 to +85	MSOP-10 (Exposed Pad),SSOP-10	Stepper Motor Driver IC
2	SGM42611A	Brushed DC/Stepper Motor	2.5	16	0.85	1.2	PWM	1540	-40 to +85	MSOP-10 (Exposed Pad),SSOP-10	Stepper Motor Driver IC
2	SGM42611B	Brushed DC/Stepper Motor	2.5	16	0.85	1.2	PWM	1540	-40 to +85	MSOP-10 (Exposed Pad),SSOP-10	Stepper Motor Driver IC
2	SGM42613	Stepper Motor	8.2	36	2	2.5	PH/EN	490	-40 to +125	TSSOP-28 (Exposed Pad)	Dual H-Bridge Motor Controller IC
2	SGM42622	Stepper Motor	1.8	10	1.3	2	STP/DIR	500	-40 to +85	TQFN-3×3-16L	Stepper Motor Driver with 1/256 Microstepping
2	SGM42622B	Stepper Motor	1.8	12	1.3	2	STP/DIR	500	-40 to +85	TQFN-3×3-16L	Stepper Motor Driver with 1/256 Micro-Stepping
2	SGM42630	Stepper Motor	8	35	1.8	2.6	STP/DIR	290	-40 to +85	TSSOP-28 (Exposed Pad)	Stepper Motor Driver with 1/8 Microstepping and Auto Decay Mode
2	SGM42633	Brushed DC/Stepper Motor	2.5	12	0.6	1	PWM	1610	-40 to +125	TSSOP-16 (Exposed Pad),TQFN-3×3-16L	Dual H-Bridge Motor Driver

Gate Drivers

Drivers per Package	Part Number	Output Peak Current (A)	V _{CC} (V)	Rise Time (ns)	Fall Time (ns)	Logic Low Input Voltage (V)	Logic High Input Voltage (V)	Input Hysteresis (V)	I _{CC} Typ (mA)	Package	Features
1	SGM48005	9/12	3 ~ 15	2.9	3.6	1.2	2.4	0.12	1	TSSOP-14	Zero Overshoot, Large Swing SiC & IGBT Driver with Precision Dual Power Rail Generation Circuit
1	SGM48010	8/12	4.5 ~ 20	10	10	0.9	2.5	0.45	0.13	TDFN-2x2-6L	Single-Channel High Speed Low-side Gate Driver
1	SGM48013C	8/13	4.5 ~ 20	7	8	0.7	2.5	0.45	0.09	SOT-23-5	Single-Channel High Speed Low-side Gate Driver
1	SGM48017C	8/13	4.5 ~ 20	7	8	0.7	2.5	0.45	0.09	SOT-23-5	Single-Channel High Speed Low-side Gate Driver
1	SGM48018	8/13	4.5 ~ 20	7	8	0.7	2.5	0.45	0.09	SOT-23-5	Single-Channel High Speed Low-side Gate Driver
1	SGM48018C	8/13	4.5 ~ 20	7	8	0.7	2.5	0.45	0.09	SOT-23-5	Single-Channel High Speed Low-side Gate Driver
1	SGM48019C	8/13	4.5 ~ 20	7	8	0.7	2.5	0.45	0.09	SOT-23-5	Single-Channel High Speed Low-side Gate Driver
1	SGM48510	11/6	4.5 ~ 24	4	4	1.3 [†]	2.1 [†]	0.8	0.5	TDFN-2x2-8AL,SOIC-8	11A High Speed Low-side MOSFET Driver
1	SGM48520	6/4	4.75 ~ 5.25	0.55	0.48	1.4 [†]	2.1 [†]	0.7	0.055	WL CSP-0.88x1.28-6B,TDFN-2x2-6AL	5V Low-side GaN and MOSFET Driver
2	SGM48523	5	4.5 ~ 18	8	8	1.2 [†]	2 [†]	0.8	0.036	SOIC-8,MSOP-8 (Exposed Pad),TDFN-3x3-8L	Dual-Channel High Speed Low-side Gate Driver
2	SGM48523B	5	8.5 ~ 18	7	7	1.2 [†]	2 [†]	0.9	0.075	SOIC-8,MSOP-8 (Exposed Pad),TDFN-3x3-8L	Dual-Channel High Speed Low-side Gate Driver
2	SGM48523C	5	8.5 ~ 18	7	7	1.2 [†]	2.1 [†]	0.9	0.075	SOIC-8,MSOP-8 (Exposed Pad),TDFN-3x3-8L	Dual-Channel High Speed Low-side Gate Driver
2	SGM48524	5	4.5 ~ 18	7	7	1.2 [†]	2.1 [†]	0.9	0.075	SOIC-8,MSOP-8 (Exposed Pad),TDFN-3x3-8L	Dual-Channel High Speed Low-side Gate Driver
2	SGM48524A	5	4.5 ~ 18	8	8	1.2 [†]	2 [†]	0.8	0.038	SOIC-8,MSOP-8 (Exposed Pad),TDFN-3x3-8L	Dual-Channel High Speed Low-side Gate Driver
2	SGM48524B	5	8.5 ~ 18	8	8	1.2 [†]	2 [†]	0.9	0.074	SOIC-8,MSOP-8 (Exposed Pad),TDFN-3x3-8L	Dual-Channel High Speed Low-side Gate Driver
2	SGM48524C	5	8.5 ~ 18	7	7	1.2 [†]	2.1 [†]	0.9	0.074	SOIC-8,MSOP-8 (Exposed Pad),TDFN-3x3-8L	Dual-Channel High Speed Low-side Gate Driver
2	SGM48524D	5	4.5 ~ 18	7	7	1.2 [†]	2.1 [†]	0.9	0.075	SOIC-8,MSOP-8 (Exposed Pad),TDFN-3x3-8L	Dual-Channel High Speed Low-side Gate Driver
2	SGM48524Q	5	4.5 ~ 18	7	8	1.2 [†]	2 [†]	0.8	0.038	SOIC-8	Dual-Channel High Speed Low-side Gate Driver
2	SGM48525	5	4.5 ~ 18	8	8	1.2 [†]	2 [†]	0.8	0.049	SOIC-8,MSOP-8 (Exposed Pad),TDFN-3x3-8L	Dual-Channel High Speed Low-side Gate Driver
2	SGM48526	5	4.5 ~ 18	8	8	1.2 [†]	2 [†]	0.8	0.038	TDFN-3x3-8L	Dual-Channel High Speed Low-side Gate Driver
1	SGM48537	4/8	9 ~ 25	9.5	8	1.2 [†]	2 [†]	0.8	0.048	SOT-23-5	Single-Channel High Speed Low-side Gate Driver
1	SGM48538	4/8	9 ~ 25	9.5	8	1.2 [†]	2 [†]	0.8	0.083	SOT-23-5	Single-Channel High Speed Low-side Gate Driver
1	SGM48539	4/8	9 ~ 25	9.5	8	1.23 [†]	2.05 [†]	0.82	0.048	SOT-23-5	Single-Channel High Speed Low-side Gate Driver
1	SGM48540	4/8	9 ~ 25	9.5	8	1.23 [†]	2.05 [†]	0.82	0.048	SOT-23-5	Single-Channel High Speed Low-side Gate Driver

Note: [†] Typical Values @ 25°C

SGM1

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SGM11124F	25	SGM2200H	29	SGM2571B	32	SGM3200	44	SGM3781	38	SGM40657	31
SGM12213A	25	SGM2201	29	SGM2572	32	SGM3204	43/44	SGM3784	38	SGM40658	31
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SGM2

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