

# Over-Voltage Protection ICs

Part Number	Input Over-Voltage Protection Threshold (V)	Input Voltage Max (V)	Battery Over-Voltage Protection Threshold (V)	Maximum Start-Up Output Current (mA)	Shutdown Current ( $\mu$ A)	Soft-Start	Soft-Stop	LDO Mode Output Voltage (V)	Package	Features
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
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, 20m $\Omega$ R <sub>DS(ON)</sub> , 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, 20m $\Omega$ R <sub>DS(ON)</sub> , 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, 20m $\Omega$ R <sub>DS(ON)</sub> , 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	NA	Yes	NA	NA	WLCSP-1.17x1.63-12B	110V/400V Surge/Inrush Immunity Function, Adj OVP, 4.5A, 28m $\Omega$ R <sub>DS(ON)</sub> , Soft Start-Up, 28V Input with Shutdown
SGM40664	Adj (Default 15.3)	28	NA	4500	NA	Yes	NA	NA	WLCSP-1.17x1.63-12B	110V/400V Surge/Inrush Immunity Function, Adj OVP, 4.5A, 28m $\Omega$ R <sub>DS(ON)</sub> , Soft Start-Up, 28V Input with Shutdown
SGM40665	Adj (Default 10.5)	28	NA	4500	NA	Yes	NA	NA	WLCSP-1.17x1.63-12B	110V/400V Surge/Inrush Immunity Function, Adj OVP, 4.5A, 28m $\Omega$ R <sub>DS(ON)</sub> , Soft Start-Up, 28V Input with Shutdown
SGM40666	Adj (Default 6.83)	28	NA	4500	NA	Yes	NA	NA	WLCSP-1.17x1.63-12B	110V/400V Surge/Inrush Immunity Function, Adj OVP, 4.5A, 28m $\Omega$ R <sub>DS(ON)</sub> , Soft Start-Up, 28V Input with Shutdown
SGM40666A	Adj (Default 6.83)	28	NA	4500	NA	Yes	NA	NA	WLCSP-1.17x1.63-12B	High-Current Over-Voltage Protector
SGM40666B	Adj (Default 6.83)	28	NA	4500	NA	Yes	NA	NA	WLCSP-1.17x1.63-12B	High-Current Over-Voltage Protector
SGM40668	Adj (Default 5.95)	28	NA	4500	NA	Yes	NA	NA	WLCSP-1.17x1.63-12B	110V/400V Surge/Inrush Immunity Function, Adj OVP, 4.5A, 28m $\Omega$ R <sub>DS(ON)</sub> , Soft Start-Up, 28V Input with Shutdown
SGM40669	Adj (Default 6.35)	28	NA	4500	NA	Yes	NA	NA	WLCSP-1.17x1.63-12B	110V/400V Surge/Inrush Immunity Function, Adj OVP, 4.5A, 28m $\Omega$ R <sub>DS(ON)</sub> , 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 ( $\mu$ A)	V <sub>IN</sub> Min (V)	V <sub>IN</sub> Max (V)	Enable Logic	Shutdown Current ( $\mu$ A)	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	160	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	160	2.6	22	Active High	<2	Programmable (100~1600)	Yes	Yes	SOT-23-6	22V, 1.6A, Latched-Off Programmable Current Limit Switch
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
2	SGM2540	2000/1500	88	2.5	20	None			Yes	No	UTDFN-2x2-8AL	Autonomous 20V Charging Sources Selection and OTG Feeding Switch Combo

