

RoHS Compliant Product
A suffix of "-C" specifies halogen & lead-free

DESCRIPTION

The SGMDxxC-C Series is designed for applications requiring transient overvoltage protection capability. They are intended for use in voltage and ESD sensitive equipment such as computers, printers, business machines, communication systems, medical equipment and other applications. These devices are ideal for situations where board space is at a premium.

This series has been specifically designed to protect sensitive components which are connected to power, data and transmission lines from overvoltage caused by ESD (electrostatic discharge), CDE (Cable Discharge Events), and EFT (electrical fast transients).

FEATURES

- IEC61000-4-2 (ESD) $\pm 15\text{kV}$ (air), $\pm 8\text{kV}$ (contact)
- IEC61000-4-4 (EFT) 40A (5/50ns)
- Protects two bidirectional lines
- Low clamping voltage
- Low Leakage Current
- Flammability Rating: UL 94V-0

APPLICATIONS

- Cell Phone Handsets and Accessories
- Microprocessor based equipment
- Personal Digital Assistants (PDA's)
- Notebooks, Desktops, and Servers
- Portable Instrumentation
- Networking and Telecom
- Serial and Parallel Ports
- Peripherals

PACKAGE INFORMATION

Package	MPQ	Leader Size
SOT-23	3K	7 inch

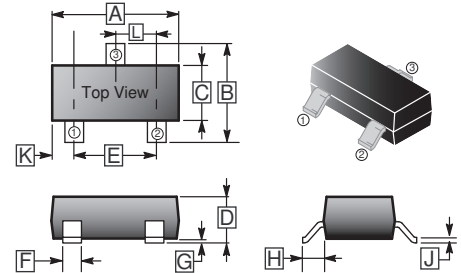
ORDER INFORMATION

Part Number	Type
SGMDxxC-C Series	Lead (Pb)-free and Halogen-free

ABSOLUTE MAXIMUM RATING

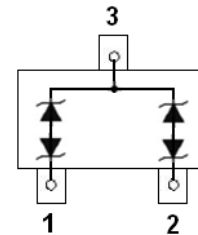
Parameter	Symbol	Ratings	Unit
IEC61000-4-2 ESD Voltage	Air Model	± 15	kV
	Contact Model	± 8	
Peak Pulse Power @ $t_p=8/20\mu\text{s}$	P_{PP}	350	W
Lead Solder Temperature (10 Sec.)	T_L	260	°C
Operating Temperature	T_{OPT}	-55~150	
Storage Temperature Range	T_{STG}	-55~150	

SOT-23



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	2.70	3.10	G	0	0.18
B	2.10	3.00	H	0.55 REF.	
C	1.20	1.80	J	0.08	0.26
D	0.89	1.3	K	0.6 REF.	
E	1.70	2.3	L	0.95 BSC.	
F	0.30	0.50			

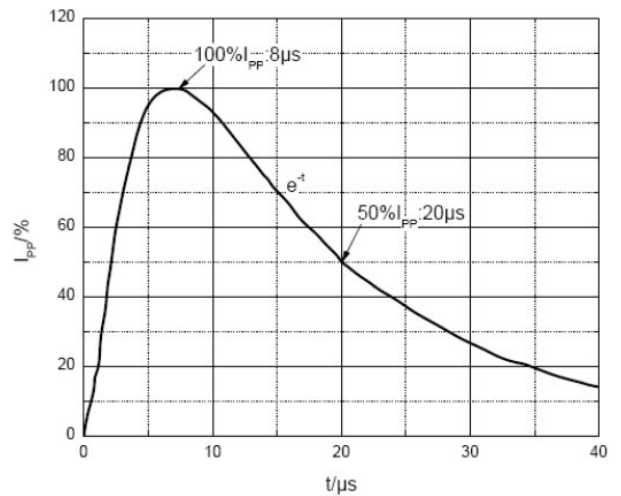
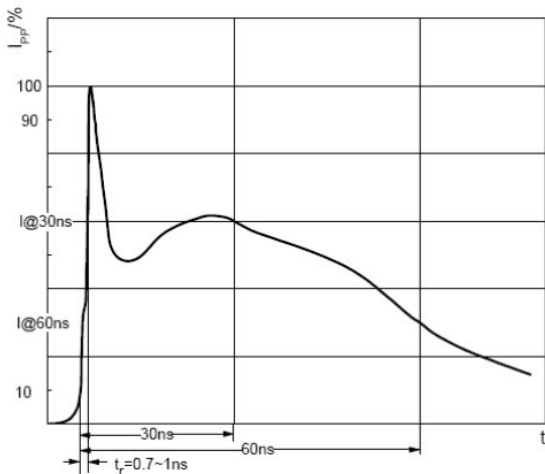
Top View



ELECTRICAL CHARACTERISTICS ($T_A=25^\circ\text{C}$ unless otherwise noted)

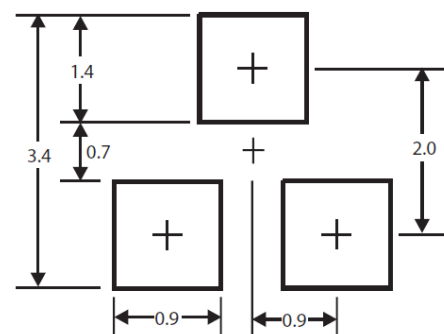
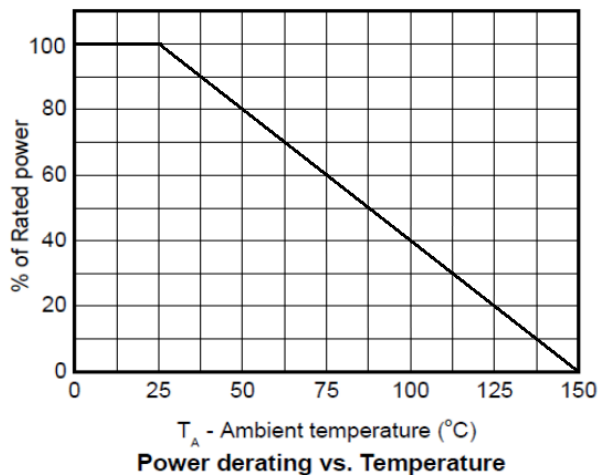
Part Number	Marking	V_{RWM} (V) (Max.)	V_B (V) (Min.)	I_T (mA)	$V_C@1A$ (V) (Max.)	V_C (V)		I_R (μA) (Max.)	C_J (pF) (Max.)
						(Max.)	(@A)		
SGMD03C-C	C03	3.3	4	1	7.5	16	20	40	450
SGMD05C-C	C05	5	6	1	9.8	18	17	10	200
SGMD08C-C	C08	8	8.5	1	13.4	24	15	2	120
SGMD12C-C	C12	12	13.3	1	19	32	11	1	75
SGMD15C-C	C15	15	16.7	1	24	38	10	1	68
SGMD18C-C	C18	18	20	1	29	45	9	1	57
SGMD20C-C	C20	20	22.3	1	35	50	8	1	52
SGMD24C-C	C24	24	26.7	1	43	52	7	1	50
SGMD36C-C	C36	36	40	1	60	75	4.5	1	35

ELECTRICAL CHARACTERISTICS CURVE



ESD pulse waveform according to IEC61000-4-2

8/20 μs pulse waveform according to IEC 61000-4-5



*Dimensions in millimeters

Mounting Pad Layout