

### DESCRIPTION

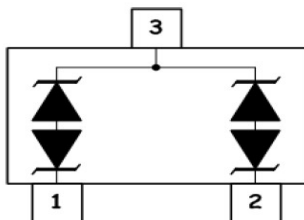
The GSMxxCM Series is designed for applications requiring transient overvoltage protection capability. They are intended for use in voltage and ESD sensitive equipment such as computers, printers, business machines, communication systems, medical equipment and other applications. These devices are ideal 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).

### ORDERING INFORMATION

- ✧ Device: GSMxxCM
- ✧ Package: SOT-23
- ✧ Material: Halogen free & RoHS compliant
- ✧ Packing: Tape & Reel
- ✧ Quantity per reel: 3,000pcs

### PIN CONFIGURATION



### FEATURES

- ✧ Transient protection for high-speed data lines  
IEC 61000-4-2 (ESD)  $\pm 30\text{kV}$  (Contact)  
 $\pm 30\text{kV}$  (Air)  
IEC 61000-4-4 (EFT) 40A (5/50 ns)
- ✧ Peak power dissipation: 500W (8/20 $\mu\text{s}$ )
- ✧ Working voltages : 3.3V, 5V
- ✧ Low clamping voltage
- ✧ Low leakage current
- ✧ Protects two bidirectional lines

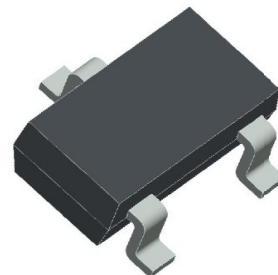
### MACHANICAL DATA

- ✧ SOT-23 package
- ✧ Flammability Rating: UL 94V-0
- ✧ High temperature soldering guaranteed:  
260 $^{\circ}\text{C}$ /10s
- ✧ Packaging: Tape and Reel
- ✧ Reel size: 7 inch

### 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 OUTLINE



## ABSOLUTE MAXIMUM RATING

Symbol	Parameter	Value	Units
V <sub>ESD</sub>	ESD per IEC 61000-4-2 (Contact)	±30	kV
	ESD per IEC 61000-4-2 (Air)	±30	
P <sub>PP</sub>	Peak Pulse Power (8/20μs)	500	W
T <sub>OPT</sub>	Operating Temperature	-55~125	°C
T <sub>STG</sub>	Storage Temperature	-55~150	°C

## ELECTRICAL CHARACTERISTICS (T<sub>amb</sub>=25°C)

PART NUMBER	DEVICE MARKING	V <sub>RWM</sub>	V <sub>B</sub>	I <sub>T</sub>	V <sub>C@1A</sub>	V <sub>C</sub>		I <sub>R</sub>	C <sub>J</sub>
		(V) (max.)	(V) (min.)	(mA)	(V) (max.)	(V) (max.)	(@A)	(μA) (max.)	(pF) (max.)
GSM03CM	3CM	3.3	3.6	1	6.5	18.0	34	1.0	75
GSM05CM	5CM	5.0	5.6	1	9.8	22.0	23	1.0	65

## ELECTRICAL CHARACTERISTICS CURVE

Fig 1 8/20μs Waveform per IEC61000-4-5

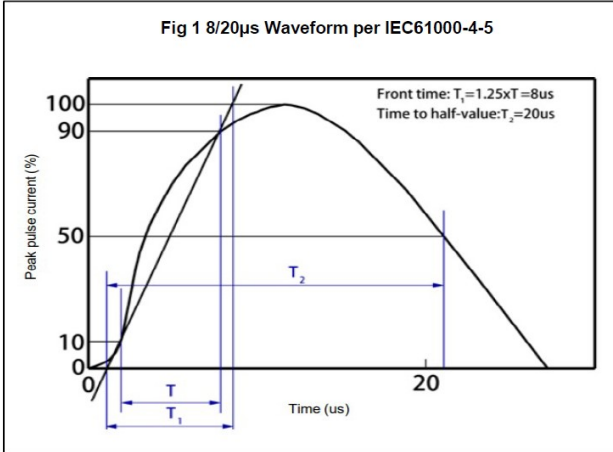


Fig 2 Contact Discharge Current Waveform per IEC 61000-4-2)

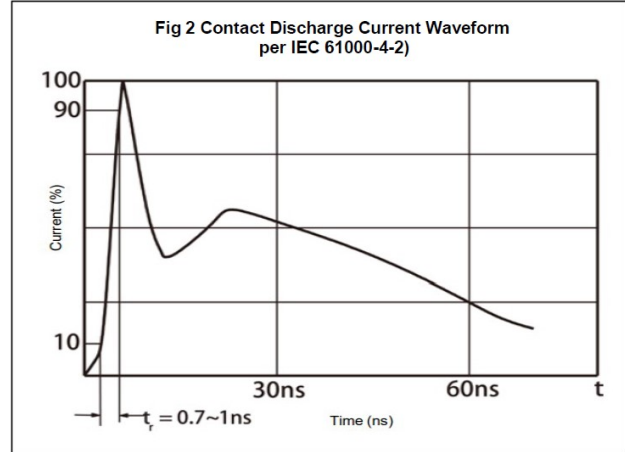


Fig 3 Voltage vs Capacitance

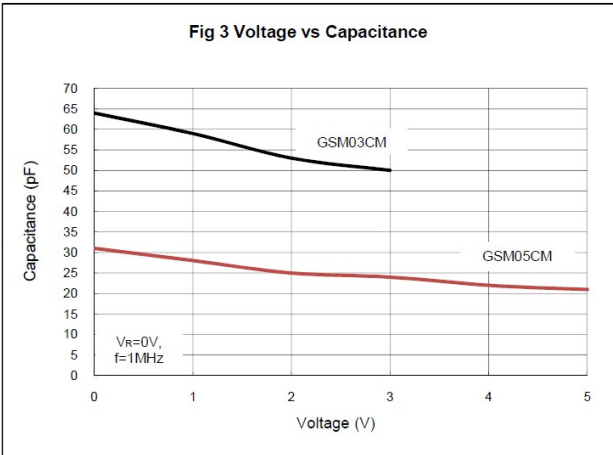
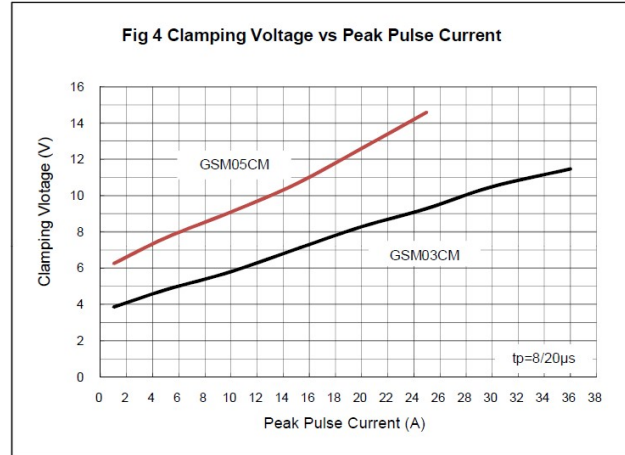


Fig 4 Clamping Voltage vs Peak Pulse Current



## SOT-23 PACKAGE OUTLINE DIMENSIONS

