

The SMxxC 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).

IEC61000-4-2 (ESD)  $\pm 30\text{kV}$  (Contact)  
 $\pm 30\text{kV}$  (Air)

IEC61000-4-4 (EFT) 40A (5/50 $\mu\text{s}$ )

350 Watts Peak Pulse Power per (tp=8/20 $\mu\text{s}$ )

Protects two bidirectional lines

Low clamping voltage

Working voltages: 3.3V to 36V

Low leakage current

Cell Phone Handsets and Accessories

Microprocessor based equipment

Personal Digital Assistants (PDA's)

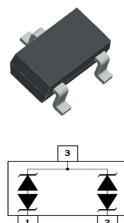
Notebooks, Desktops, and Servers

Portable Instrumentation

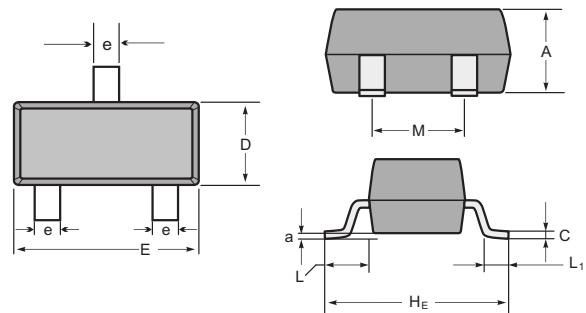
Networking and Telecom

Serial and Parallel Ports.

Peripherals



## SOT-23



SOT-23 mechanical data

UNIT	A	C	D	E	H <sub>E</sub>	e	M	L	L <sub>1</sub>	a
mm	max	1.1	0.15	1.4	3.0	2.6	0.5	1.95	0.55 (ref)	0.36 (ref)
	min	0.9	0.08	1.2	2.8	2.2	0.3	1.7		
mil	max	43	6	55	118	102	20	77	22 (ref)	14 (ref)
	min	35	3	47	110	87	12	67		

## ABSOLUTE MAXIMUM RATING

Symbol	Parameter	Value	Units
$V_{\text{ESD}}$	ESD per IEC 61000-4-2 (Contact) ESD per IEC 61000-4-2 (Air)	$\pm 30$ $\pm 30$	kV
$P_{\text{PP}}$	Peak Pulse Power (8/20 $\mu\text{s}$ )	350	W
$T_{\text{OPT}}$	Operating Temperature	-55/+150	°C
$T_{\text{STG}}$	Storage Temperature	-55/+150	°C
$T_L$	Lead Soldering Temperature	260 (10 sec.)	°C

# SMXXC

## ELECTRICAL CHARACTERISTICS (Tamb=25°C)

PART NUMBER	DEVICE MARKING	V <sub>RWM</sub> (V) (max.)	V <sub>B</sub> (V) (min.)	I <sub>T</sub> (mA)	V <sub>C@1A</sub> (V) (max.)	V <sub>C</sub> (V) (max.) (@A)		I <sub>R</sub> (µA) (max.)	C <sub>J</sub> (pF) (max.)
SM03C	C03	3.3	4.0	1	7.5	16.0	20	40	450
SM05C	C05	5.0	6.0	1	9.8	18.0	17	10	200
SM08C	C08	8.0	8.5	1	13.4	24.0	15	2	120
SM12C	C12	12.0	13.3	1	19.0	32.0	11	1	75
SM15C	C15	15.0	16.7	1	24.0	38.0	10	1	68
SM18C	C18	18.0	20.0	1	29.0	45.0	9	1	57
SM20C	C20	20.0	22.3	1	35.0	50.0	8	1	52
SM24C	C24	24.0	26.7	1	43.0	52.0	7	1	50
SM36C	C36	36.0	40.0	1	60.0	75.0	4.5	1	35

## RATING AND CHARACTERISTIC CURVES (SMXXC)

