

TVS Diode Array

DESCRIPTION

The SMxx 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).

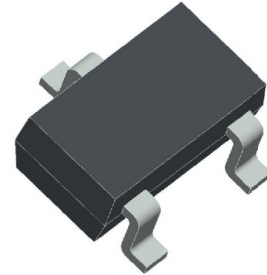
APPLICATIONS

- 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

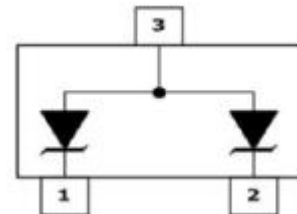
MACHANICAL DATA

- SOT-23 package
- Flammability Rating: UL 94V-0
- Packaging: Tape and Reel
- High temperature soldering guaranteed:
260°C/10s
- Reel size: 7 inch

PACKAGE OUTLINE



PIN CONFIGURATION



FEATURES

- IEC61000-4-2 (ESD) $\pm 8\text{kV}$ (Contact)
 $\pm 15\text{kV}$ (Air)
- IEC61000-4-4 (EFT) 40A (5/50ns)
- 300 Watts Peak Pulse Power per
($t_p=8/20\mu\text{s}$)
- Protects one bidirectional line or two unidirectional lines
- Low clamping voltage
- Working voltages: 3.3V to 36V
- Low leakage current

ORDERING INFORMATION

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

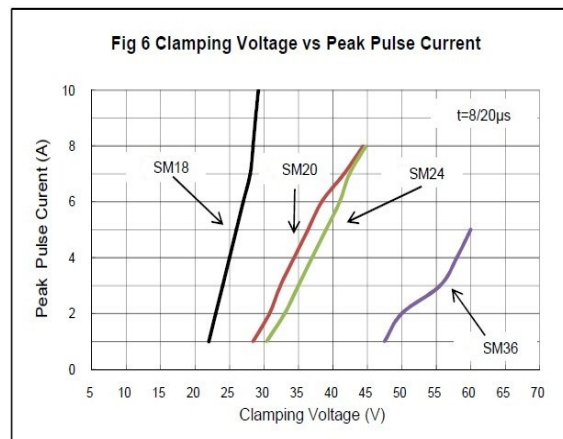
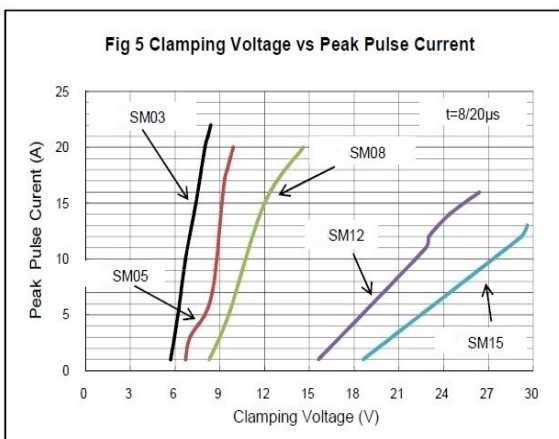
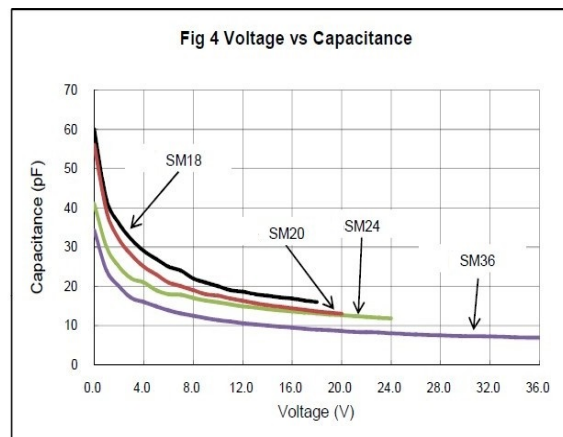
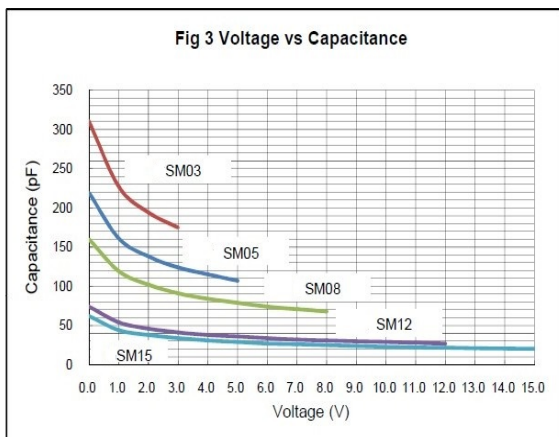
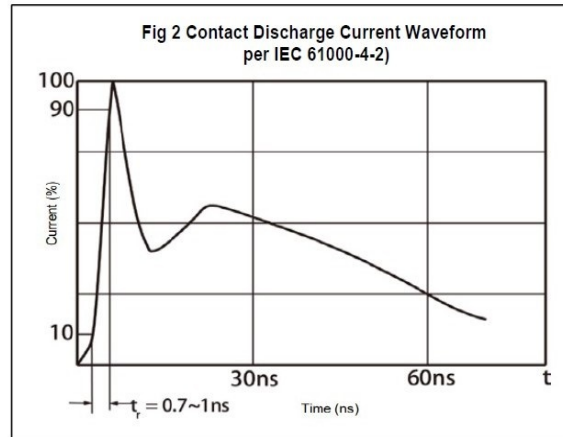
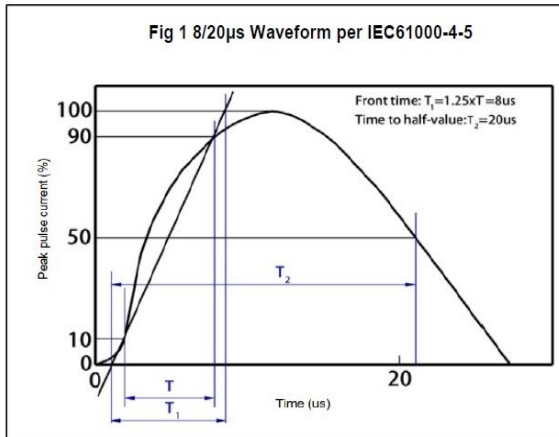
ABSOLUTE MAXIMUM RATING

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

ELECTRICAL CHARACTERISTICS ($T_{amb}=25^{\circ}C$)

PART NUMBER	DEVICE MARKING	V_{RWM}	V_B	I_T	$V_C@1A$	V_C		I_R	C_J
		(V) (max.)	(V) (min.)	(mA)	(V) (max.)	(V) (max.)	(@A)	(μ A) (max.)	(pF) (max.)
SM03	M03	3.3	4.0	1	7.0	14.0	20	40	450
SM05	M05	5.0	6.0	1	9.8	18.0	17	10	300
SM08	M08	8.0	8.5	1	13.4	24.0	15	2	240
SM12	M12	12.0	13.3	1	19.0	32.0	11	1	130
SM15	M15	15.0	16.7	1	24.0	38.0	10	1	120
SM18	M18	18.0	20.0	1	29.0	45.0	9	1	100
SM20	M20	20.0	22.3	1	35.0	50.0	8	1	90
SM24	M24	24.0	26.7	1	43.0	52.0	7	1	80
SM36	M36	36.0	40.0	1	60.0	75.0	5.0	1	60

ELECTRICAL CHARACTERISTICS CURVE



SOT-23 PACKAGE OUTLINE DIMENSIONS

