

Unidirectional TVS Diodes

DESCRIPTION

The SDXX Series is designed for applications requiring transient overvoltage protection capability. They are intended for use in voltage and ESD sensitive equipments 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).



SOD-323

FEATURES

- IEC61000-4-2 (ESD) $\pm 15\text{kV}$ (air), $\pm 8\text{kV}$ (contact)
- IEC61000-4-4 (EFT) 40A (5/50ns)
- 350 Watts Peak Pulse Power per (tp=8/20 μs)
- Protects one I/O line (bidirectional)
- Low clamping voltage
- Working voltages :3.3V,5V,12V,15V,24V,36V
- Low leakage current

MACHANICAL DATA

- SOD-323 package
- Packaging: Tape and Reel
- High temperature soldering guaranteed:260 $^{\circ}\text{C}$ /10s

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

ORDERING INFORMATION

- Device: SDXX
- Package: SOD-323
- Material: Halogen free
- Packing: Tape & Reel
- Quantity per reel: 3,000 pcs

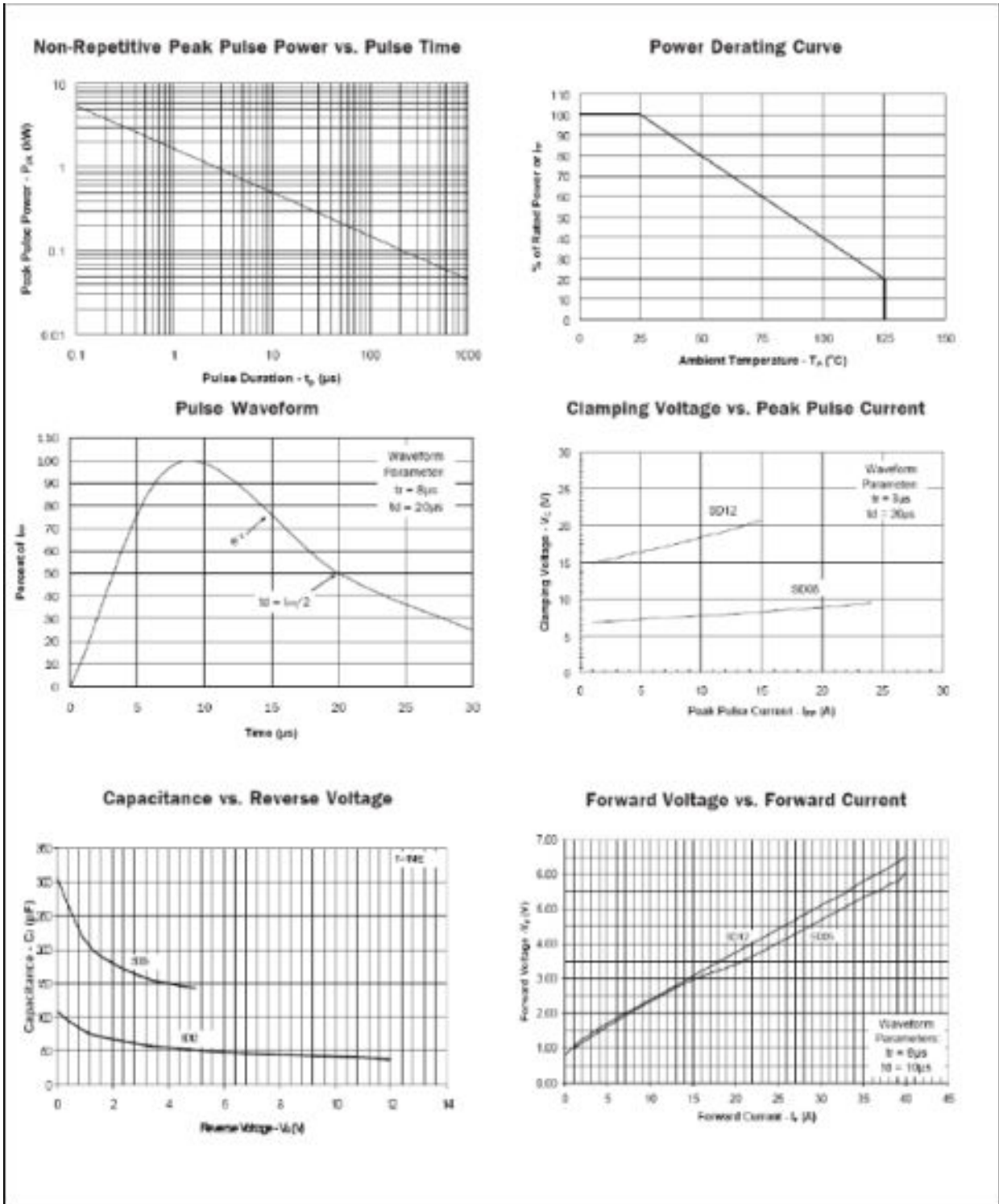
ABSOLUTE MAXIMUM RATING

Symbol	Parameter	Value	Units
V_{ESD}	ESD per IEC 61000-4-2 (Air)	±15	kV
	ESD per IEC 61000-4-2 (Contact)	±8	
P_{PP}	Peak Pulse Power (8/20µs)	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

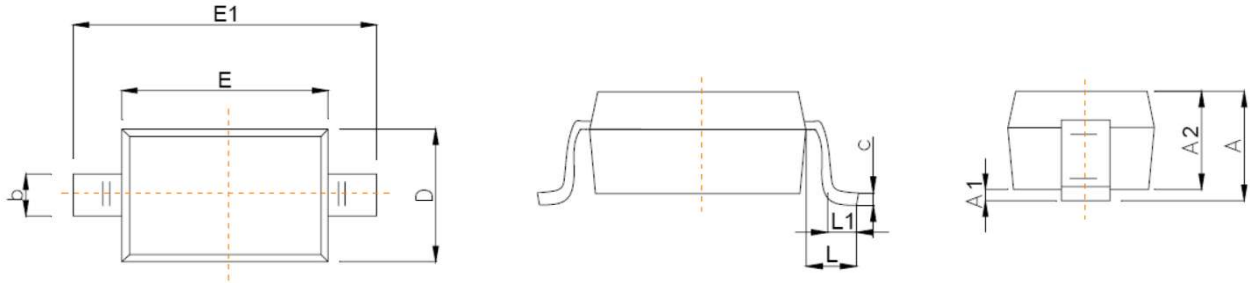
ELECTRICAL CHARACTERISTICS ($T_{amb}=25^{\circ}C$)

PART NUMBER	DEVICE MARKING	V_{RWM} (V) (max.)	V_B (V) (min.)	I_T (mA)	$V_C@5A$ (V) (max.)	V_C (V)		I_R (µA) (max.)	C_T (pF) (max.)
						(max.)	(@A)		
SD03	03W	3.3	4.0	1	6.5	10.9	30	40	500
SD05	05W	5.0	6.0	1	9.8	13.5	24	10	350
SD12	12W	12.0	13.3	1	19.0	25.9	15	1	150
SD15	15W	15.0	16.7	1	24.0	30.0	12	1	100
SD24	24W	24.0	26.7	1	43.0	48.0	8	1	90
SD36	36W	36.0	40.0	1	60.0	75.0	5	1	75

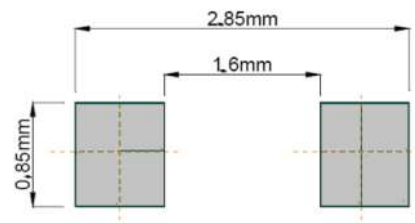
ELECTRICAL CHARACTERISTICS CURVE



SOD-323 PACKAGE OUTLINE DIMENSIONS



Symbol	Dimensions In Millimeters	
	Min	Max
A		1.00
A1	0.000	0.100
A2	0.800	0.900
b	0.250	0.350
c	0.080	0.150
D	1.200	1.400
E	1.600	1.800
E1	2.500	2.700
e	1.800	2.040
L	0.475 REF	
L1	0.250	0.400
θ	0°	8°



Recommended Pad outline