

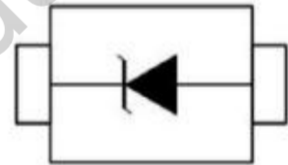
DESCRIPTION

The SD12 is designed for applications requiring transient over voltage 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.



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 (unidirectional) Low clamping voltage
- ◆ Working voltages: 12V Low leakage current



APPLICATIONS

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

ORDERING INFORMATION

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

ABSOLUTE MAXIMUM RATING

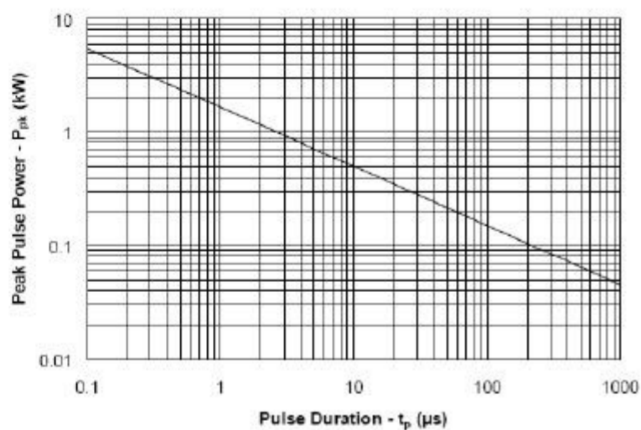
Symbol	Parameter	Value	Units
VesD	ESD per IEC 61000-4-2(Air) ESD per IEC 61000-4-2(Contact)	±15 ±8	kV
Ppp	Peak Pulse Power (8/20μs)	350	W
Topt	Operating Temperature	-55/+150	°C
Tstg	Storage Temperature	-55/+150	°C
TL	Lead Soldering Temperature	260(10 sec.)	°C

ELECTRICAL CHARACTERISTICS(Tamb=25°C)

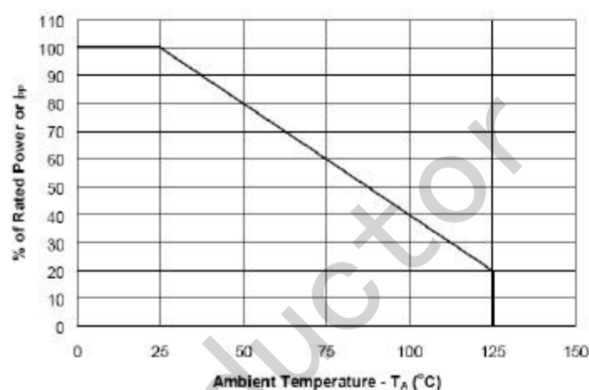
PART NUMBER	V _{RWM} (V) (max.)	V _B (V) (min.)	I _T (mA)	V _{C@5A} (V) (max.)	V _C (V) (max.) (@A)		I _R (μA) (max.)	C _T (pF) (max.)
SD03	3.3	4	1	6.5	10.9	30	40	500
SD05	5	6	1	9.8	13.5	24	10	350
SD08	8	8.4	1	12	24	15	1	240
SD12	12	13.3	1	19	25.9	15	1	150
SD15	15	16.7	1	24	30	12	1	100
SD24	24	26.7	1	43	48	8	1	90
SD36	36	40	1	60	75	5	1	75

ELECTRICAL CHARACTERISTICS CURVE

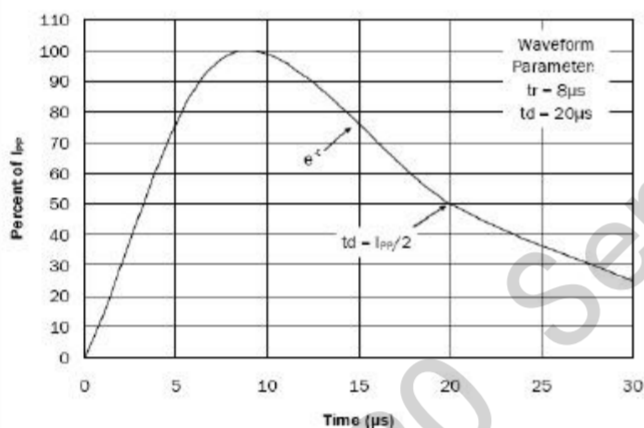
Non-Repetitive Peak Pulse Power vs. Pulse Time



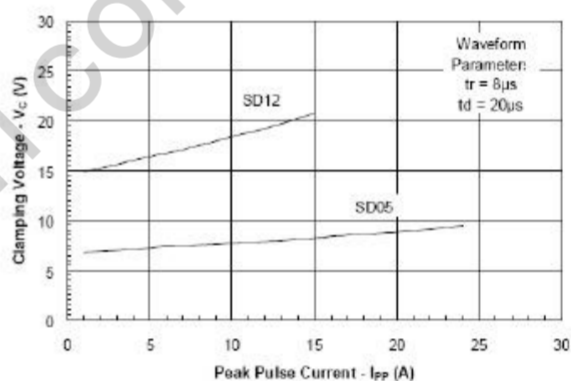
Power Derating Curve



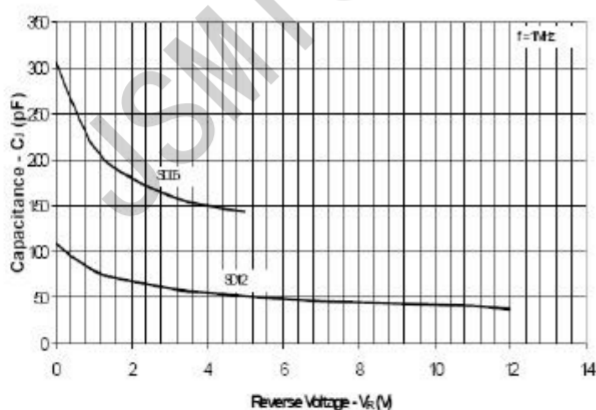
Pulse Waveform



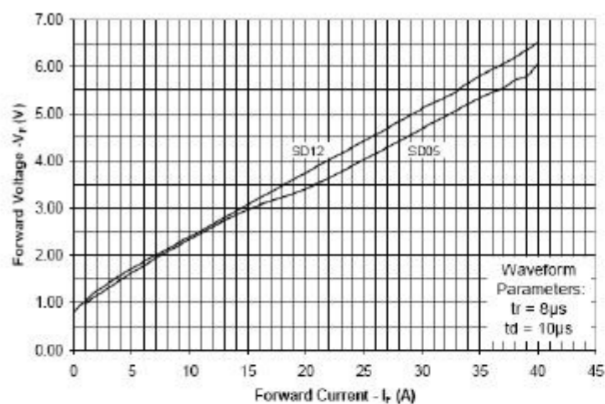
Clamping Voltage vs. Peak Pulse Current



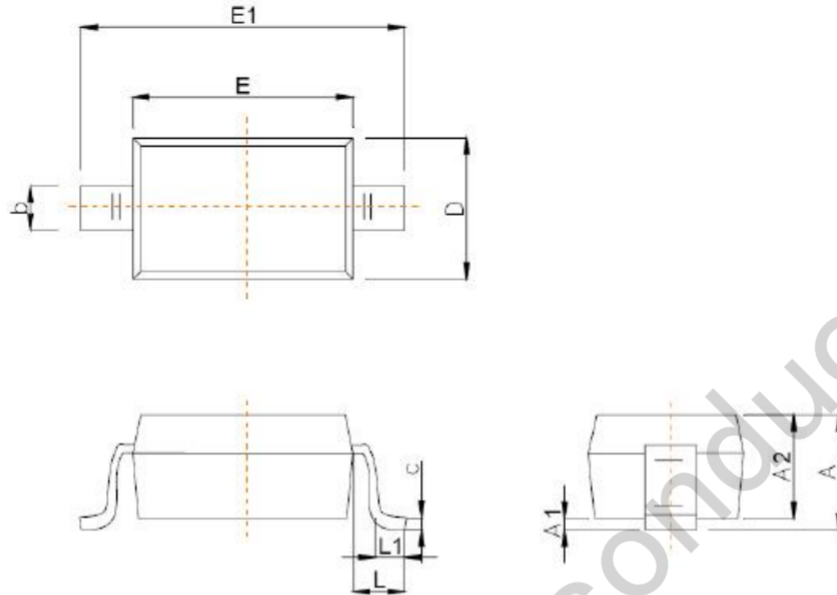
Capacitance vs. Reverse Voltage



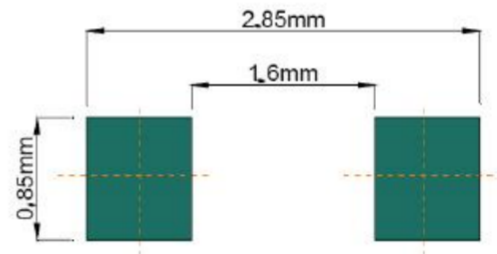
Forward Voltage vs. Forward Current



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