

1- Line Unidirectional ESD Protection Diode

GENERAL DESCRIPTION

These surge protection diodes are 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.

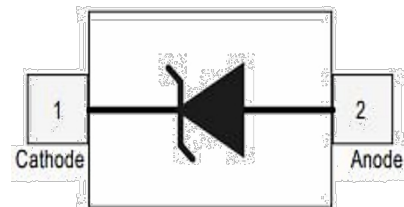
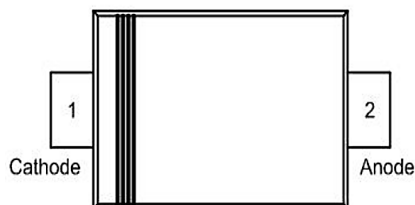
FEATURES

- Unidirectional ESD protection of one line
- Reverse stand-off voltage: 5.0V Max
- Low leakage current: nA Level
- Response time is typically < 1 ns
- Low clamping voltage: $V_C = 11\text{ V @ } I_{PP} = 11\text{ A}$ (TYP)
- ESD Protection: 30kV(air)/ 30kV(contact) (IEC61000-4-2)
- RoHS compliant
- Package: SOD323
- Reel Size: 7 Inch

APPLICATIONS

- Cell Phone Handsets and Accessories
- Microprocessor based equipment
- Personal Digital Assistants (PDA's)
- Notebooks, Desktops, and Servers

SCHEMATIC & PIN CONFIGURATION



Absolute Maximum Ratings (TA = 25 °C, unless otherwise specified)

Item	Symbol	VALUE	Unit
Peak Pulse Power (tp = 8/20μs)	PPPM	143	W
Peak Pulse Current (tp = 8/20μs)	IPPM	11	A
ESD voltage IEC 61000-4-2 (air discharge)	VESD	30	kV
ESD voltage IEC 61000-4-2 (contact discharge)	VESD	30	kV
Maximum lead temperature for soldering during 10s	TL	260	°C
Storage Temperature Range	Tstg	-55 to +150	°C
Operating Temperature Range	TOP	-40 to +125	°C

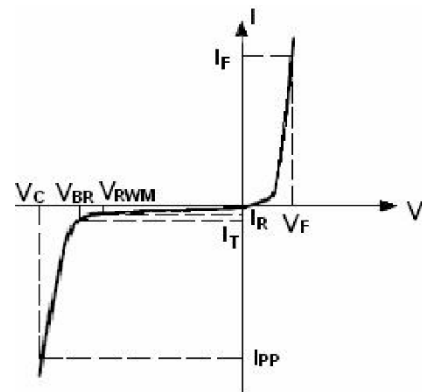
ELECTRICAL CHARACTERISTICS

(TA = 25°C, unless otherwise noted.)

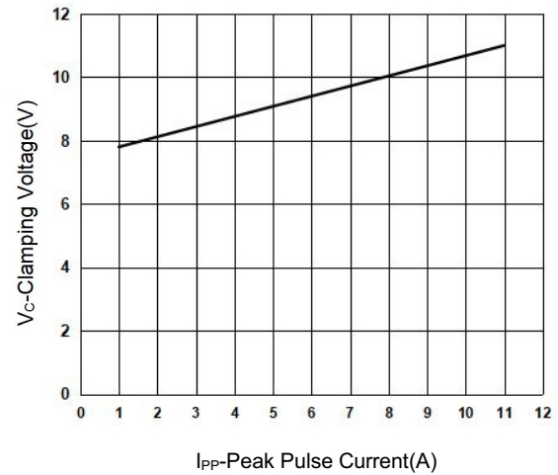
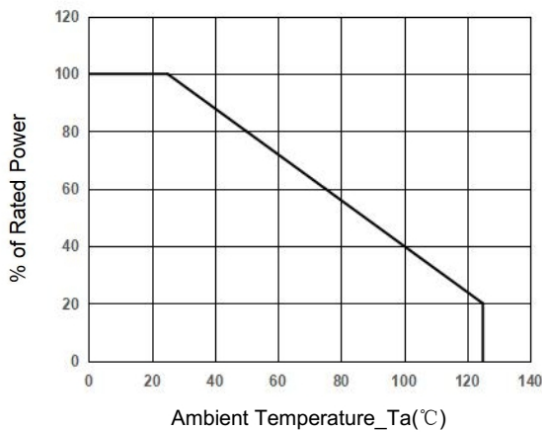
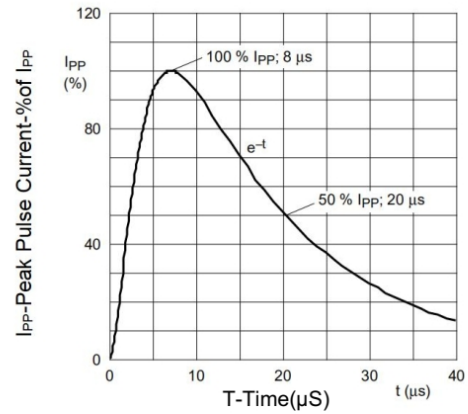
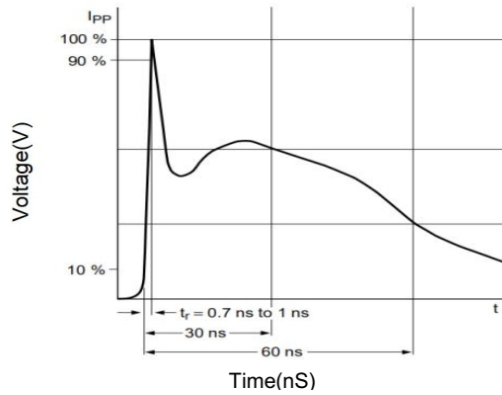
PARAMETER	Symbol	CONDITIONS	MIN	TYP	MAX	UNIT
Reverse Working Voltage	VRWM				5.0	V
Breakdown Voltage	VBR	IT=1mA	6.5	7.5	8.5	V
Leakage Current ILeak	IR	VRWM=5.0V			100	nA
Forward Voltage	VF	IF=10mA	0.7	0.8	0.9	V
Clamping Voltage	VC	I _{PP} =1A, Tp=8/20μs		7.8		V
		I _{PP} =11A, Tp=8/20μs		11	13	V
Junction Capacitance	CJ	VR=0V, f=1MHz		80	90	pF
		VR=5.0V, f=1MHz		36	40	pF

Portion Electronics Parameter

Symbol	Parameter
IPP	Maximum Reverse Peak Pulse Current
VC	Clamping Voltage @ IPP
VRWM	Working Peak Reverse Voltage
IR	Reverse Leakage Current @ VRWM
IT	Test Current
VBR	Breakdown Voltage @ IT
IF	Forward Current
VF	Forward Voltage @ IF

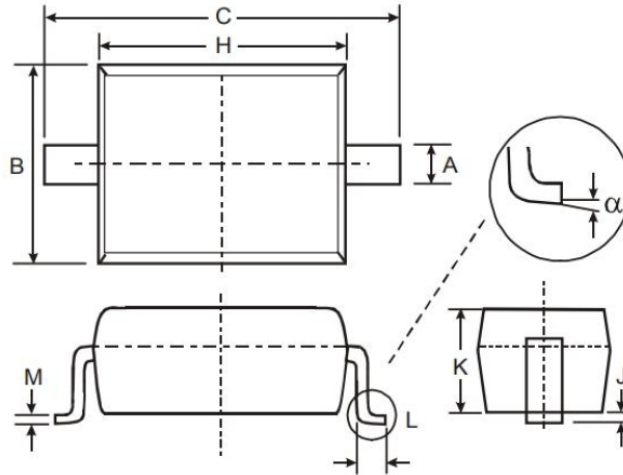


Typical Performance Characteristics (TA=25°C unless otherwise Specified)



PACKAGE DESCRIPTION

SOD323



SYMBOL	MILLIMETERS	
	MIN	MAX
A	0.25	0.35
B	1.20	1.40
C	2.40	2.70
H	1.60	1.80
J	0.01	0.15
K	0.70	0.90
L	0.20	0.40
M	0.08	0.15
α	0°	8°

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