

ESD3B3CM

Low capacitanc Bidirectional TVS/ESD Protection Diode

General description

Bidirectional TVS Diode in a SOD-323 Package.

FEATURES

- Low clamping voltage
- Low leakage current
- Working voltages : 3.3V
- Protects one Vcc or data line

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

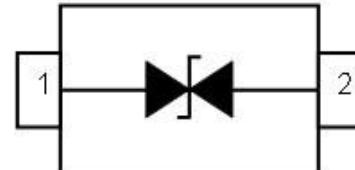
MACHANICAL DATA

- SOD-323 package
- Flammability Rating: UL 94V-0
- High temperature soldering guaranteed:260°C/10s

Package Outline



SOD-323 Package



PIN CONFIGURATION

ABSOLUTE MAXIMUM RATING

Symbol	Parameter	Value	Units
V_{ESD}	ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact)	± 30 ± 30	kV
P_{PP}	Peak Pulse Power (8/20 μ s)	500	W
T_{OPT}	Operating Temperature	-55~150	°C
T_{STG}	Storage Temperature	-55~150	°C

ELECTRICAL CHARACTERISTICS (Tamb=25°C)

Symbol	Parameter	Test Condition	Min	Typ	Max	Units
V_{RWM}	Reverse Working Voltage				3.3	V
V_{BR}	Reverse Breakdown Voltage	$I_T = 1\text{mA}$	4.0		6.0	V
I_R	Reverse Leakage Current	$V_{RWM} = 3.3\text{V}$			1.0	μA
V_c	Clamping Voltage	$I_{PP} = 1\text{A}$, $t_p = 8/20\mu\text{s}$			6.5	V
V_c	Clamping Voltage	$I_{PP} = 28\text{A}$, $t_p = 8/20\mu\text{s}$		13	18	V
C_J	Junction Capacitance	$V_R = 0\text{V}$, $f = 1\text{MHz}$		38	45	pF

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ELECTRICAL CHARACTERISTICS CURV

Fig 1 8/20 μ s Waveform per IEC61000-4-5

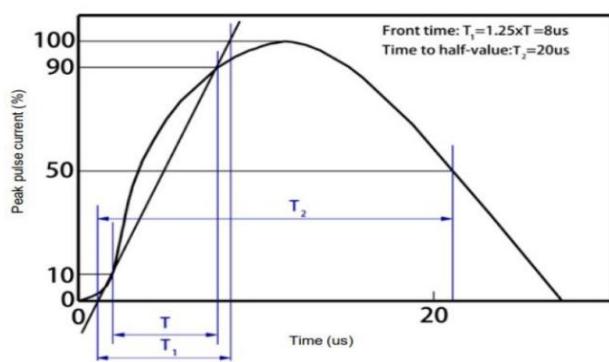


Fig 2 Contact Discharge Current Waveform per IEC 61000-4-2)

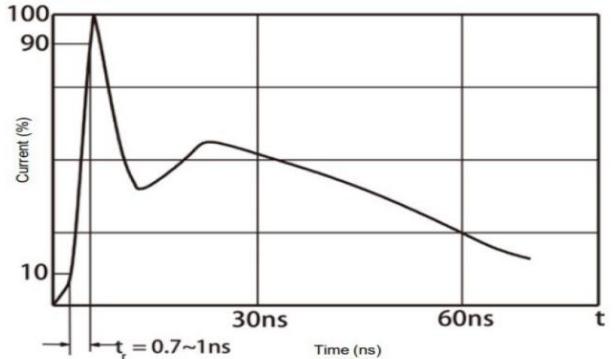


Fig 3 Voltage vs Capacitance

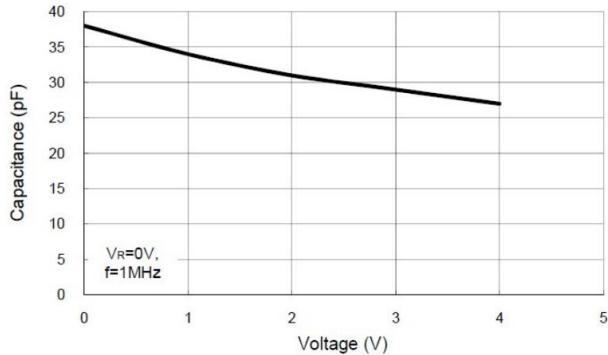
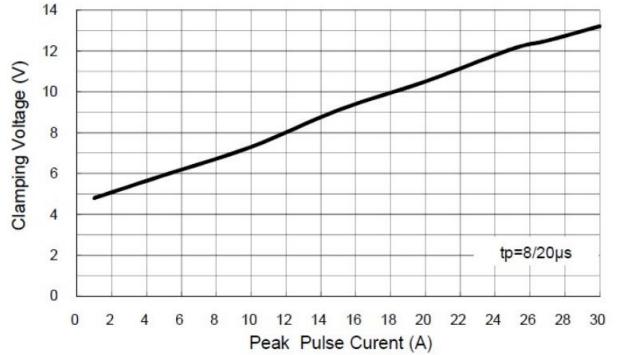
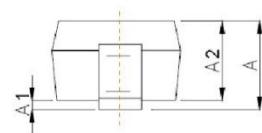
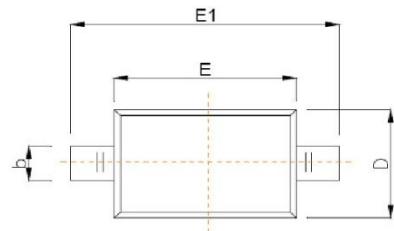


Fig 4 Clamping Voltage vs Peak Pulse Current

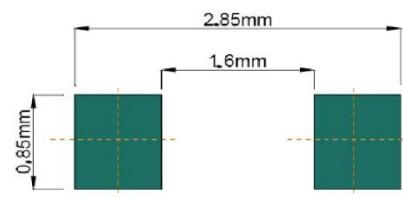


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SOD-323 PACKAGE OUTLINE DIMENSIONS



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	0.060	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

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