

DSD4V5TC

DSD4V5TC Single line Bi-directional TVS Diode

General description

Single line Bi-directional TVS Diode
in a SOD-323 Package.

FEATURES

- Low clamping voltage
- Low leakage current
- Working voltages : 4.5V
- Peak power dissipation:3200W (8/20 μ s)
- Solid-state silicon-avalanche technology

APPLICATIONS:

- Power lines Microprocessor based equipment
- Personal Digital Assistants (PDA's)
- Microprocessors based equipment
- Notebooks, Desktops, and Servers
- Cell phone Handsets and Accessories
- Notebooks, Desktops, and Servers
- Portable Electronics
- Peripherals

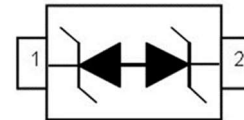
MACHANICAL DATA

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

Package Outline



SOD-323 Package



PIN CONFIGURATION

Device Marking:

Device Type	Marking
DSD4V5TC	D4

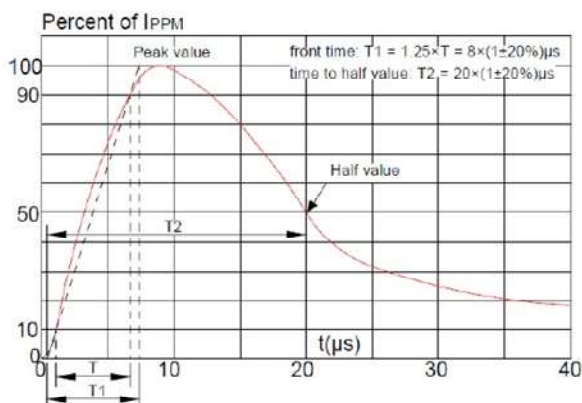
ABSOLUTE MAXIMUM RATING

Symbol	Parameter	Value	Units
V _{ESD}	ESD per IEC 61000-4-2 (Air)	±30	kV
	ESD per IEC 61000-4-2 (Contact)	±30	
P _{PP}	Peak Pulse Power (8/20 μ s)	3200	W
T _{OPT}	Operating Temperature	-55~125	°C
T _{STG}	Storage Temperature	-55~150	°C
TL	Lead Soldering Temperature	260	°C

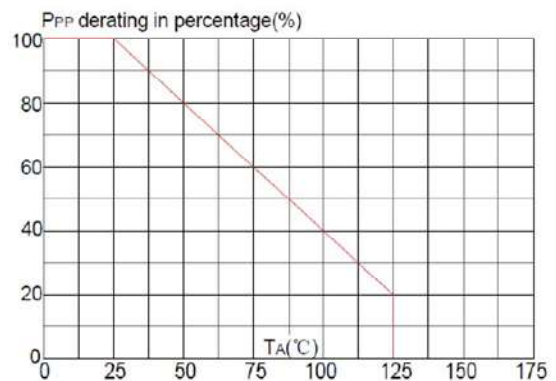
DSD4V5TC

ELECTRICAL CHARACTERISTICS (T _{amb} =25°C)						
Symbol	Parameter	Test Condition	Min	Typ	Max	Units
V _{RWM}	Reverse Working Voltage				4.5	V
V _{BR}	Reverse Breakdown Voltage	I _T = 1mA	4.6	5.2	6.4	V
I _R	Reverse Leakage Current	V _{RWM} = 4.5V			1	uA
I _{PP}	Peak Pulse Current	t _p = 8/20μs			160	A
V _C	Clamping Voltage	I _{PP} = 50A, t _p = 8/20μs		8.5	11	V
		I _{PP} = 100A, t _p = 8/20μs		12	14	V
		I _{PP} = 160A, t _p = 8/20μs		17	20	V
C _J	Junction Capacitance	V _R = 0V, f = 1MHz		300	500	pF

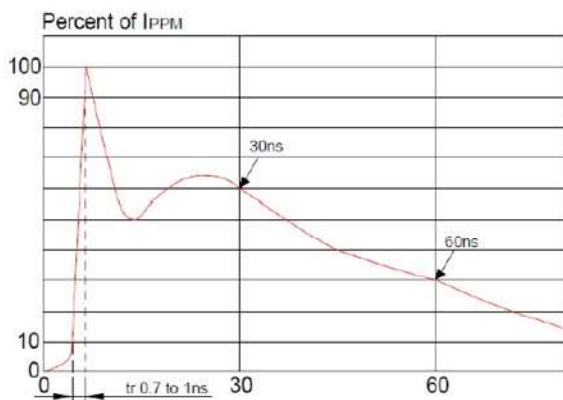
Typical Characteristic:



Pulse Waveform (8/20us)



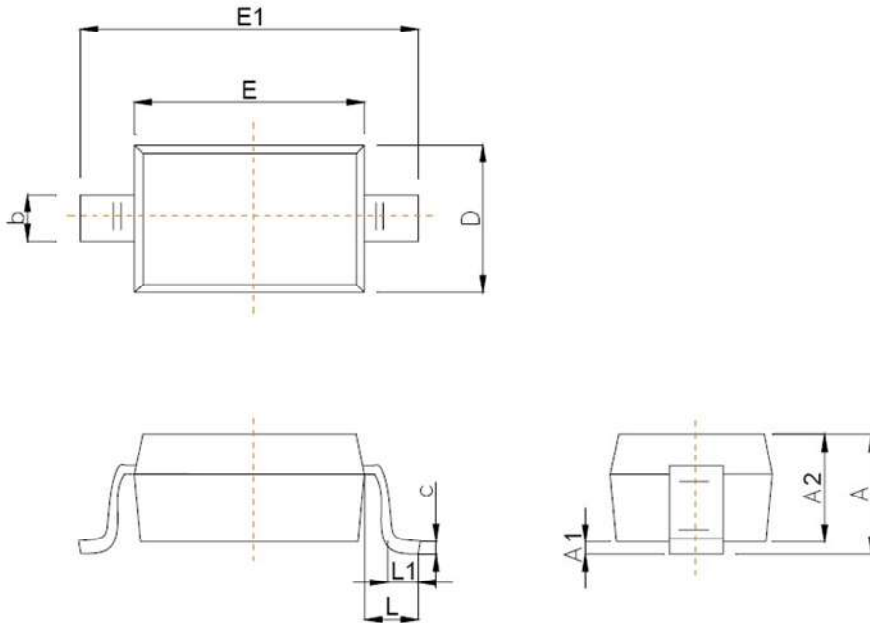
Pulse Derating Curve



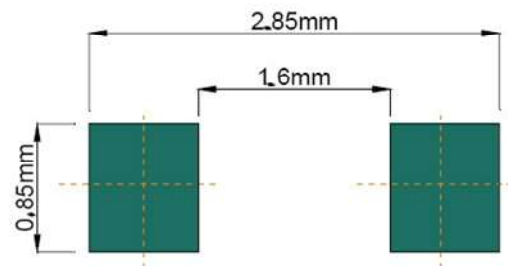
ESD Clamping(8kV Contact Discharge)

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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	0.080	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

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