

MSKSEMI 美森科

SEMICONDUCTOR



ESD



TVS



TSS



MOV



GDT



PLED

CESDBLC5V0D3-MS

Product specification

FEATURES

- IEC61000-4-2 (ESD) $\pm 8\text{kV}$ (Contact),
 $\pm 15\text{kV}$ (Air)
- IEC61000-4-4 (EFT) 40A (5/50ns)
Peak power dissipation: 60W (8/20 μs)
- Protects one I/O line
- Low clamping voltage
- Working voltages : 5V
- Low leakage current


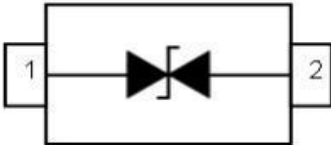

MACHANICAL DATA

- SOD-323 package
- Terminals: Tin plated, solderable per
- MIL-STD-750, method 2026
- Packaging: Tape and Reel
- Reel size: 7 inch

APPLICATIONS

- High Speed Line :USB1.0/2.0, VGA, DVI, SDI.
- Serial and Parallel Ports
- Notebooks, Desktops, Servers
- Projection TV
- Cellular handsets and accessories
- Portable instrumentation
- Peripherals

Reference News

PACKAGE OUTLINE	PIN CONFIGURATION	Marking
		
SOD-323		

ABSOLUTE MAXIMUM RATING

Symbol	Parameter	Value	Units
V_{ESD}	ESD per IEC 61000-4-2 (Contact)	± 30	kV
	ESD per IEC 61000-4-2 (Air)	± 30	
P_{PP}	Peak Pulse Power (8/20 μ s)	60	W
T_{OPT}	Operating Temperature	-55~150	°C
T_{STG}	Storage Temperature	-55~150	°C

ELECTRICAL CHARACTERISTICS (T_{amb}=25 °C)

Symbol	Parameter	Test Condition	Min	Typ	Max	Units
V_{RWM}	Reverse Working Voltage				5.0	V
V_{BR}	Reverse Breakdown Voltage	$I_T = 1\text{mA}$	5.6		7.8	V
I_R	Reverse Leakage Current	$V_{RWM} = 5\text{V}$			1.0	μA
V_C	Voltage	$I_{PP} = 5\text{A}$, $t_p = 8/20\mu\text{s}$			12.0	V
C_J	Junction Capacitance	$V_R = 0\text{V}$, $f = 1\text{MHz}$			18	pF

ELECTRICAL CHARACTERISTICS CURVE

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

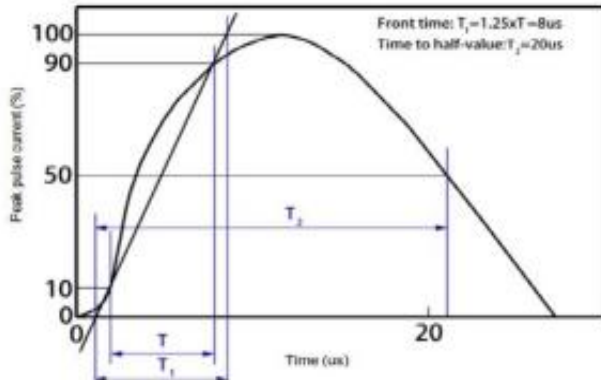


Fig 2 Contact Discharge Current Waveform per IEC 61000-4-2)

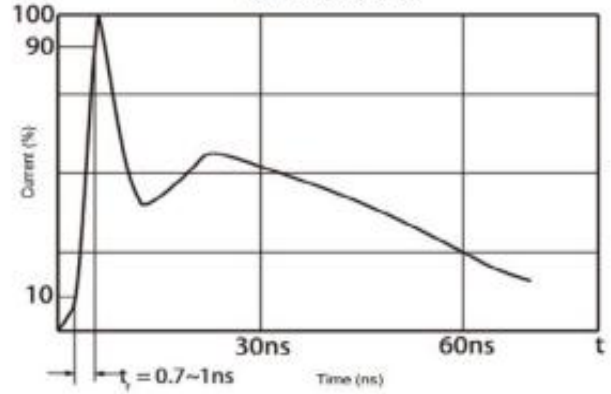


Fig 3 Power Derating Curve

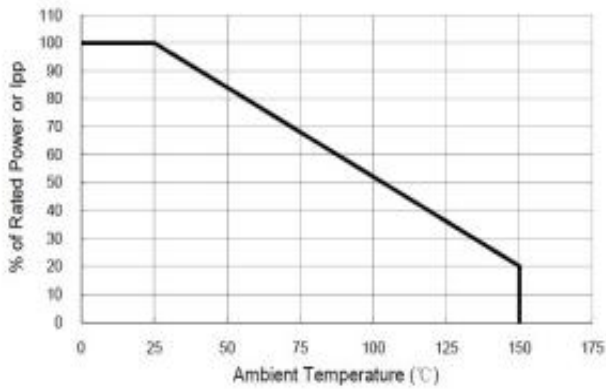


Fig 4 Voltage vs Capacitance

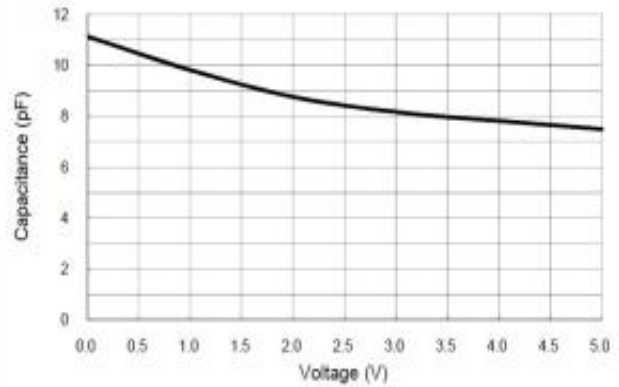


Fig 5 Voltage Sweeping

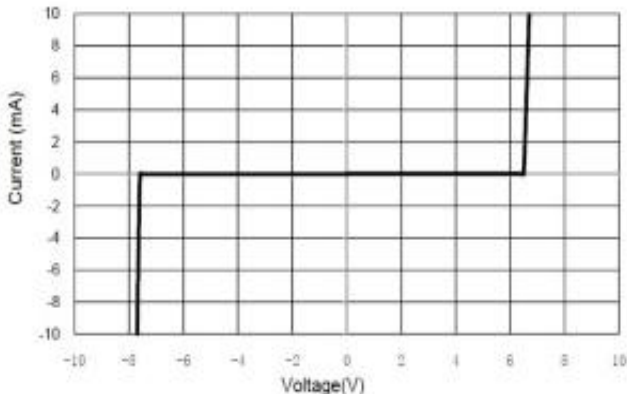
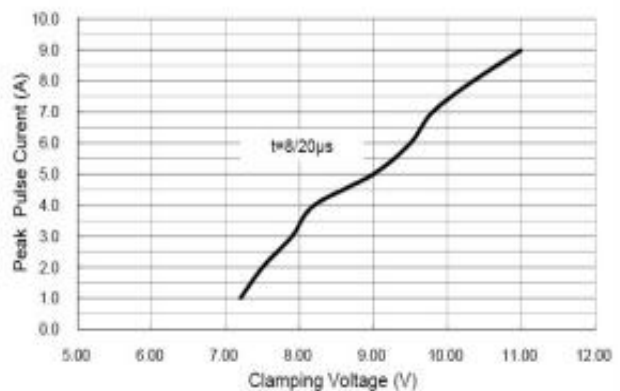
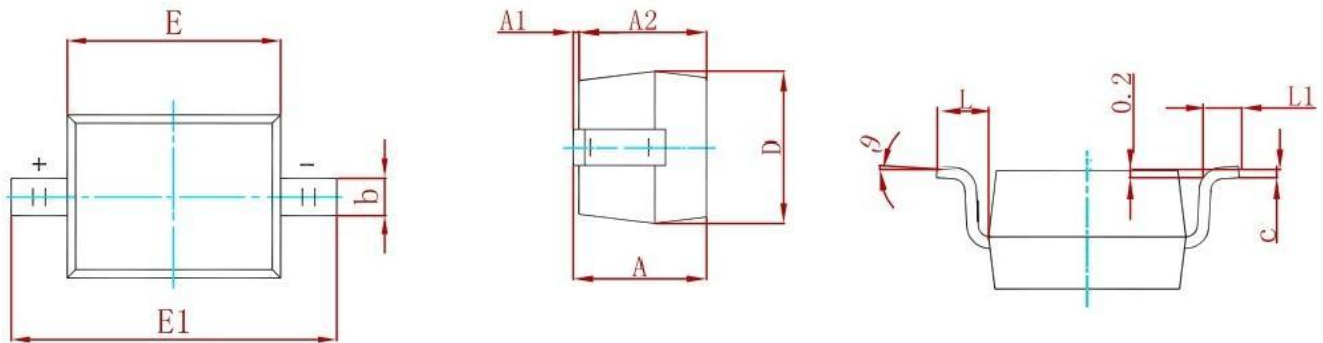


Fig 6 Clamping Voltage vs Peak Pulse Current

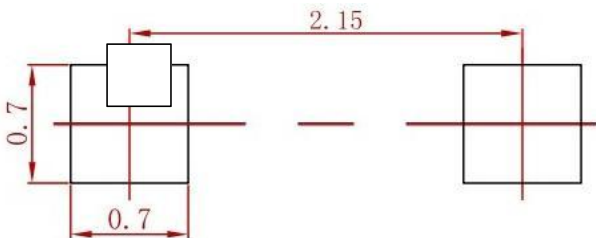


PACKAGE MECHANICAL DATA



Symbol	Dimensions in Millimeters		Dimensions in inches	
	Min	Max	Min.	Max
A		1.000		0.039
A1	0.000	0.100	0.000	0.004
A2	0.800	0.900	0.031	0.035
b	0.250	0.350	0.010	0.014
C	0.080	0.150	0.003	0.006
D	1.200	1.400	0.047	0.055
E	1.600	1.800	0.063	0.071
E1	2.550	2.750	0.100	0.108
L	0.475 REF		0.019 REF	
L1	0.250	0.400	0.010	0.016
θ	0°	8°	0°	8°

Suggested Pad Layout



Note:

1. Controlling dimension: in millimeters.
2. General tolerance: $\pm 0.05\text{mm}$.
3. The pad layout is for reference purposes only.

REEL SPECIFICATION

P/N	PKG	QTY
CESDBLC5V0D3-MS	SOD-323	3000

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