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ESD



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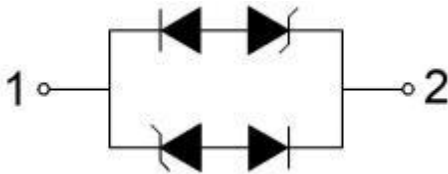
PLED

Product data sheet

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SOD-323



Mechanical Characteristics

- Package: SOD-323
- Lead Finish: Matte Tin
- Case Material: "Green" Molding Compound.
- UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 3 per J-STD-020
- Tape Reel :3000pcs

Features

- 2-pin lead-less package
- Low Junction capacitance (Max value: 1.5pF)
- Peak Pulse current (8/20 μ s) MAX : 20A
- IEC61000-4-2 (ESD) \pm 15kV (air), \pm 8kV (contact)
- Low leakage current
- Working voltages:5V
- RoHS Compliant

Applications

- LED Lighting Modules
- RS232/RS485
- CAN and LIN Bus
- Portable Instrumentation
- General Purpose I/O
- Automotive application

Absolute Maximum Ratings (T= 25 °C, RH= 45 % - 75 % , unless otherwise noted)

Parameters	Symbol	Value	Unit
Peak Pulse Power (tp=8/20µs waveform)	P _{PP}	350	W
Peak Pulse Current (8/20µs)	I _{PP}	20	A
ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact)	V _{ESD}	± 15 ± 8	KV
Operating Temperature Range	T _J	-55 to + 125	°C
Storage Temperature Range	T _{stg}	-55 to + 150	°C

Electrical Characteristics (T=25°C, RH=45%-75%, unless otherwise noted)

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Reverse Working Voltage	V _{RWM}				5	V
Reverse Breakdown Voltage	V _{BR}	I _R = 1mA	6.2		9	V
Reverse Leakage Current	I _R	V _R = 5V			0.2	µA
Clamping voltage	V _C	I _{PP} = 1A, T _p =8/20us			10.5	V
Clamping voltage	V _C	I _{PP} = 20A, T _p =8/20us			20	V
Junction capacitance	C _j	V _R = 0V, f = 1MHz	0.8		1.5	PF

Typical Characteristics

FIG1: Power rating derating curve

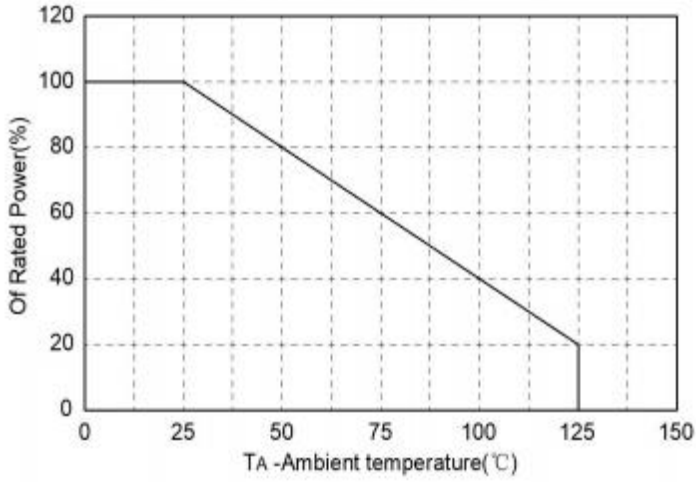


FIG2: pulse Waveform

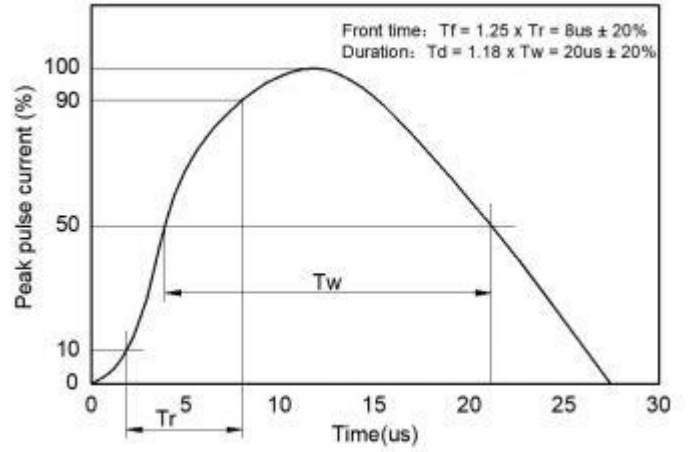


FIG3: Capacitance between terminals characteristics

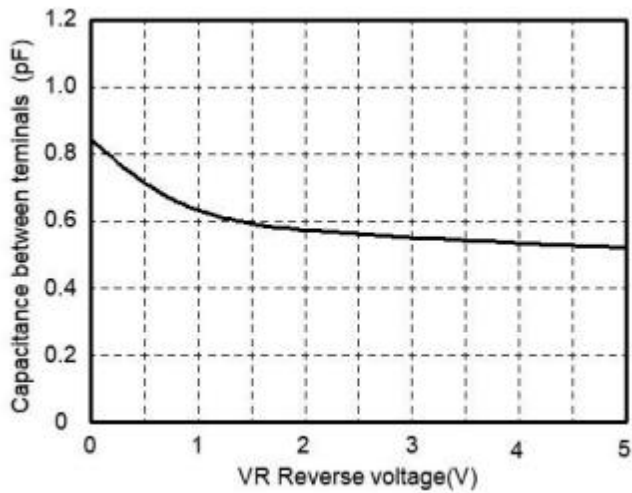
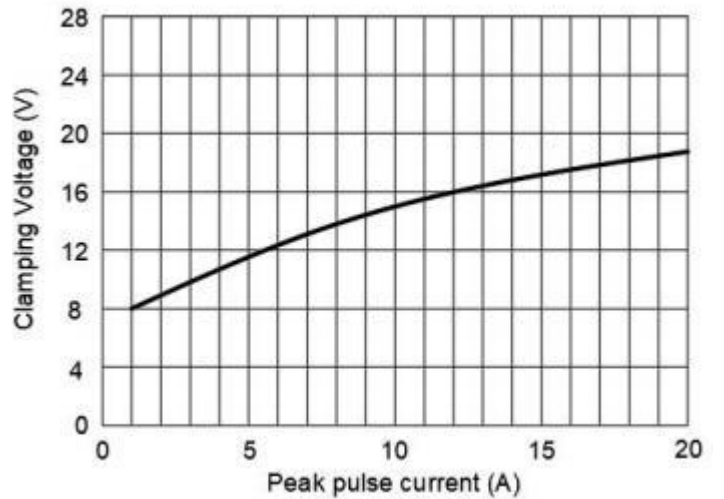
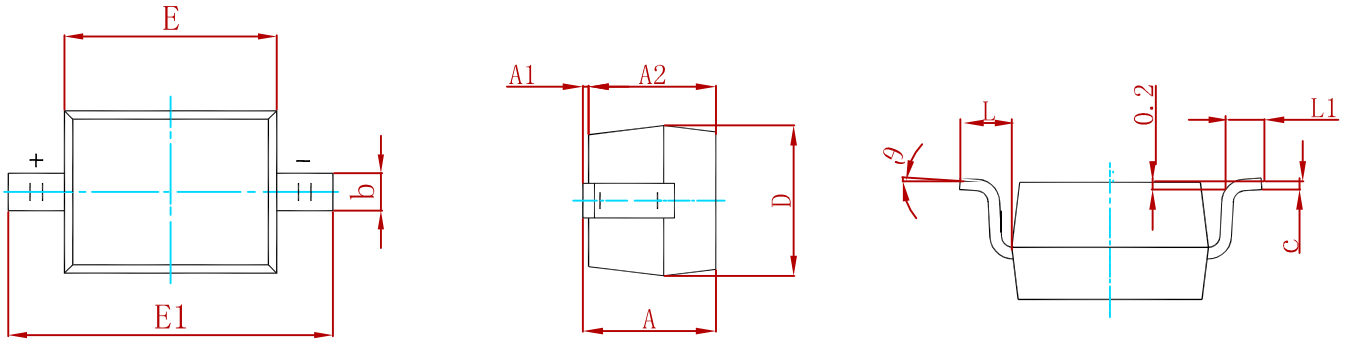


FIG4: Clamping Voltage vs. Peak Pulse Current

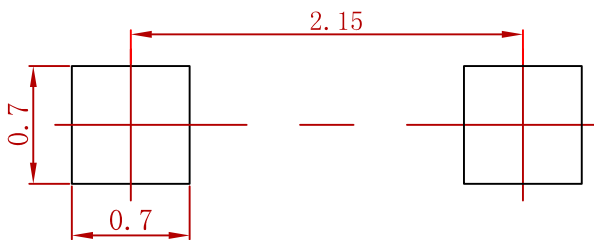


PACKAGE MECHANICAL DATA



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
BSD3C051L2-MS	SOD-323	3000

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