

# MSKSEMI

SEMICONDUCTOR



ESD



TVS



TSS



MOV



GDT

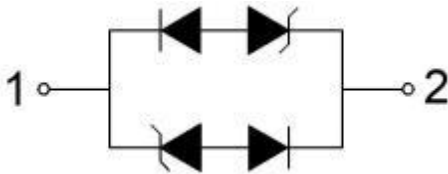


PLED

Product data sheet



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  $\mu$  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= 2 5 ° C, RH= 4 5 % - 7 5 % , unless otherwise noted)

Parameters	Symbol	Value	Unit
Peak Pulse Power (tp=8/20μs waveform)	P <sub>PP</sub>	350	W
Peak Pulse Current (8/20μs)	I <sub>PP</sub>	20	A
ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact)	V <sub>ESD</sub>	± 15 ± 8	KV
Operating Temperature Range	T <sub>J</sub>	-55 to + 125	°C
Storage Temperature Range	T <sub>stg</sub>	-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 <sub>RWM</sub>				5	V
Reverse Breakdown Voltage	V <sub>BR</sub>	I <sub>R</sub> = 1mA	6.2		9	V
Reverse Leakage Current	I <sub>R</sub>	V <sub>R</sub> = 5V			0.2	μA
Clamping voltage	V <sub>C</sub>	I <sub>PP</sub> = 1A, T <sub>P</sub> =8/20us			10.5	V
Clamping voltage	V <sub>C</sub>	I <sub>PP</sub> = 20A, T <sub>P</sub> =8/20us			20	V
Junction capacitance	C <sub>j</sub>	V <sub>R</sub> = 0V, f = 1 MHz			1.5	PF

## Typical Characteristics

FIG1: Power rating derating curve

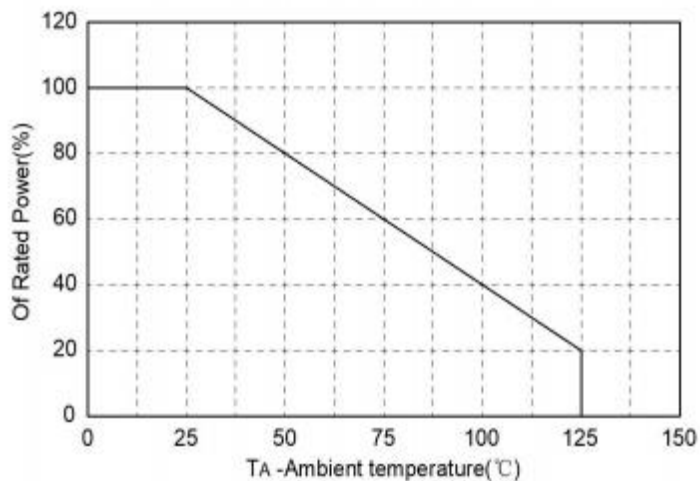


FIG2: pulse Waveform

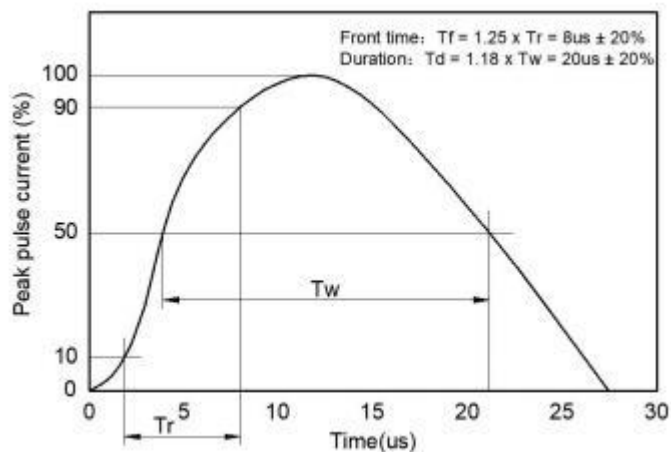


FIG3: Capacitance between terminals characteristics

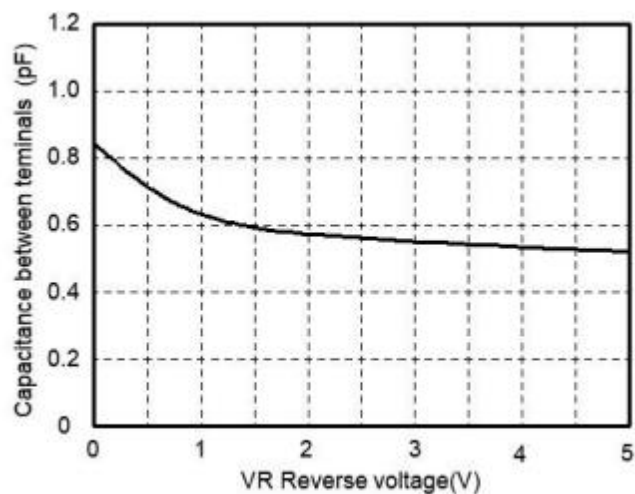
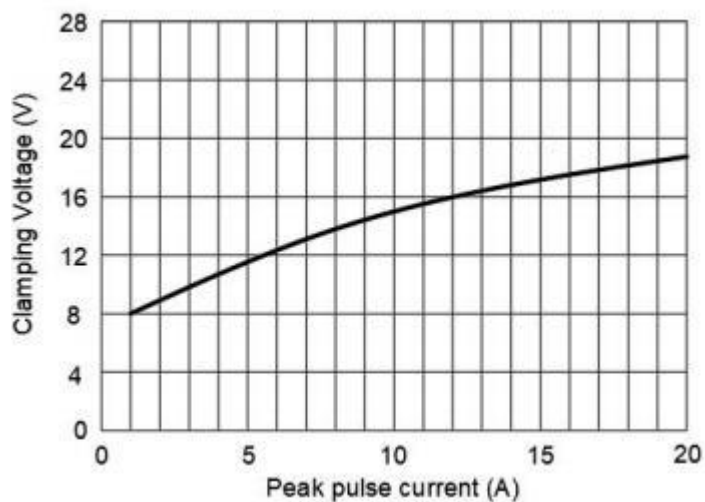
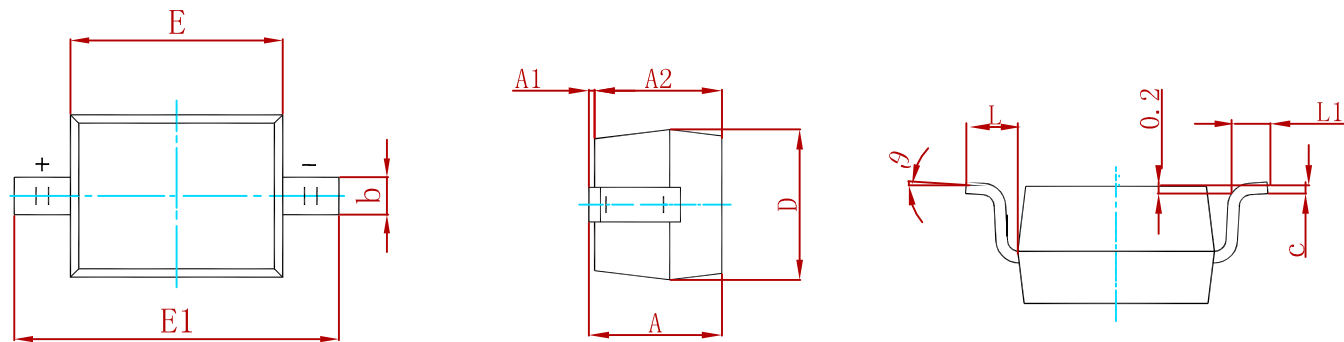


FIG4: Clamping Voltage vs. Peak Pulse Current

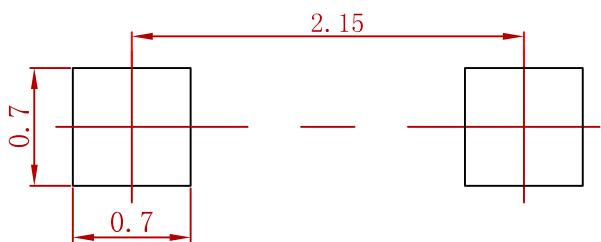


PACKAGE MECHANICAL DATA



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:± 0.05mm.  
3.The pad layout is for reference purposes only.

REEL SPECIFICATION

P/N	PKG	QTY
CDSOD323-T05C	SOD-323	3000

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