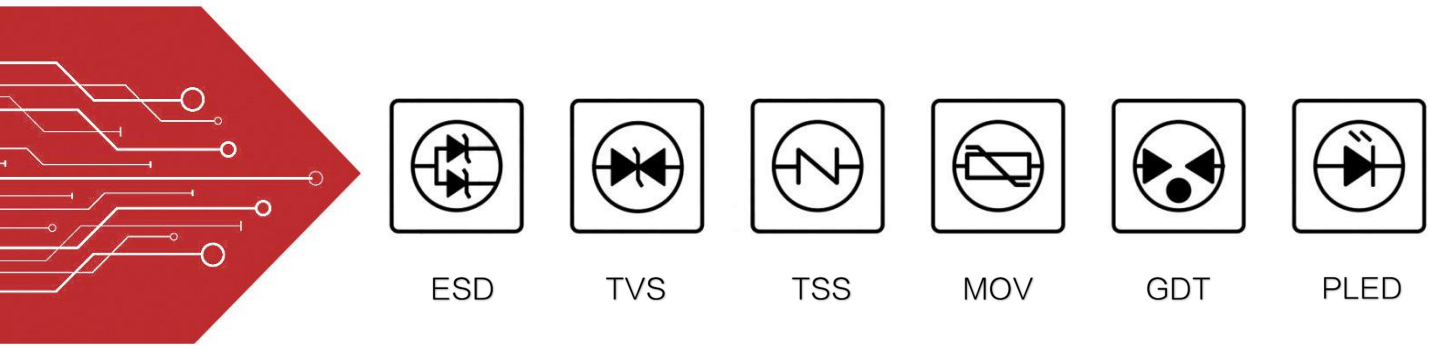
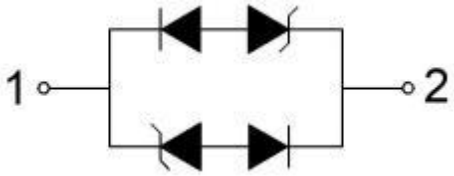
MSKSEMI
SEMICONDUCTOR



Product data sheet

www.msksemi.com

SOD-323



Features

- 2-pin lead-less package
- Low Junction capacitance (Max value: 1.5pF)
- Peak Pulse current (8/20 μs) MAX : 20A
- IEC61000-4-2 (ESD) ±30kV (air), ±30kV (contact)
- Low leakage current
- Working voltages:3.3V
- RoHS Compliant

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

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_{PP}	380	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}	±30 ±30	KV
Operating Temperature Range	T_J	−55 to + 125	°C
Storage Temperature Range	Tstg	−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}				3.3	V
Reverse Breakdown Voltage	$V_{(BR)R}$	I_R = 1mA	5		8	V
Reverse Leakage Current	I_R	V_R = 3.3V			0.5	uA
Clamping voltage	V_C	I_{PP} = 1A, T_P=8/20us			9.5	V
Clamping voltage	V_C	I_{PP} = 20A, T_P=8/20us			19	V
Junction capacitance	Cj	V_R =0V, f =1MHz	0.8	1	1.5	pF

Typical Characteristics

FIG1： Power rating derating curve

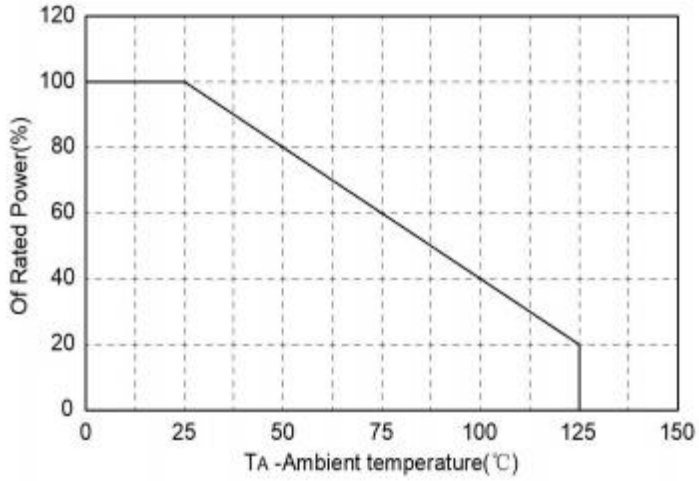


FIG2： pulse Waveform

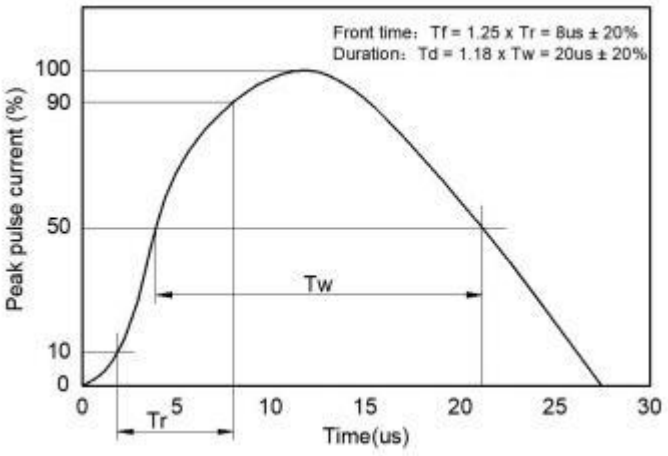


FIG3： Capacitance between teminals charateristics

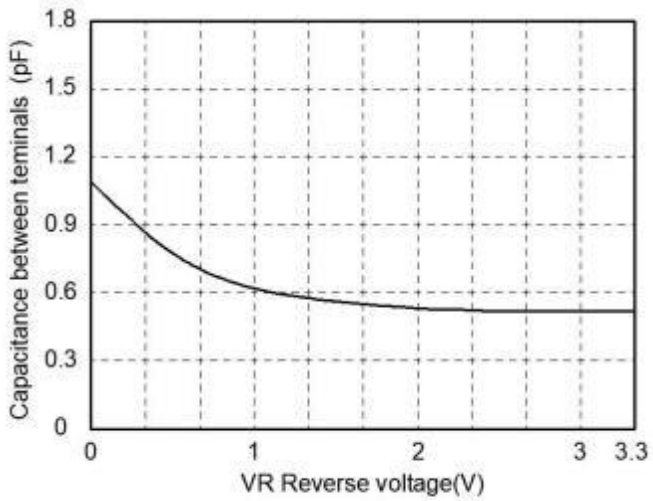
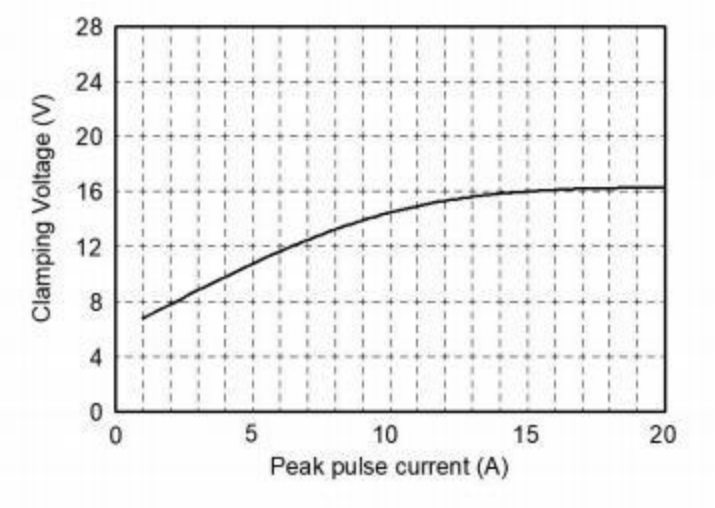
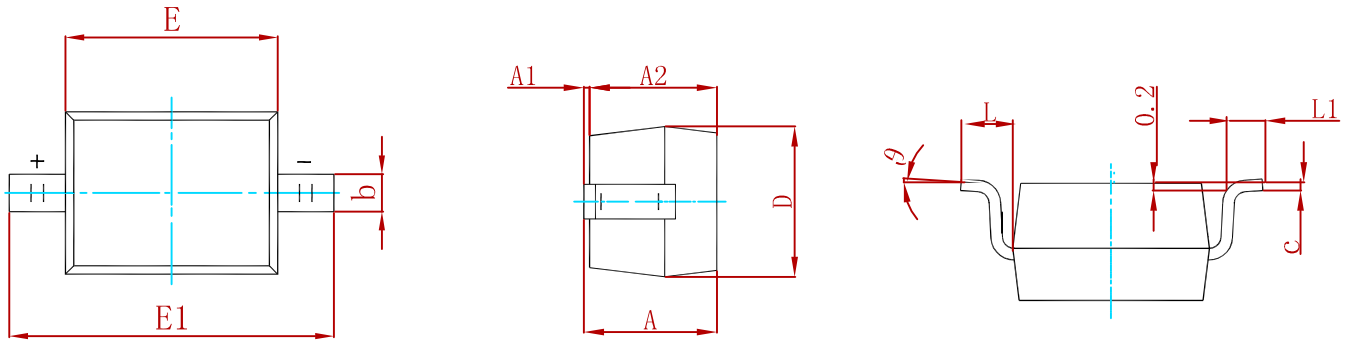


FIG4: Clamping Voltage vs. Peak Pulse Current

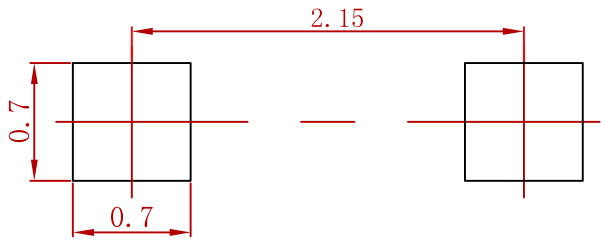


PACKAGE MECHANICAL DATA



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
BSD3C031L2-MS	SOD-323	3000

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