

MSKSEMI

SEMICONDUCTOR



ESD



TVS



TSS



MOV



GDT



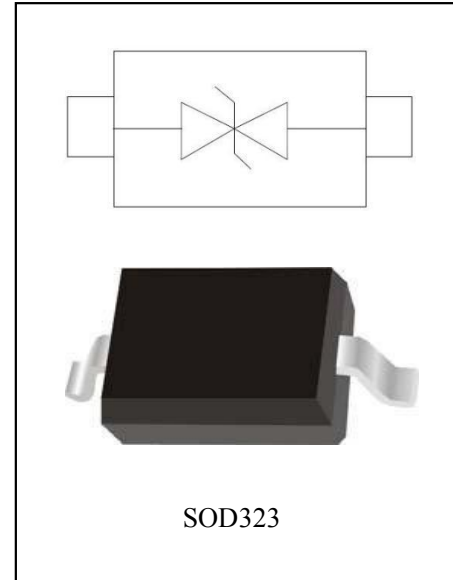
PLED

Product data sheet

www.msksemi.com

Features

- ◆ 150 Watts peak pulse power (tp = 8/20μs)
- ◆ Transient protection for high speed data lines to IEC 61000-4-2 (ESD) ±30kV (air), ±30kV (contact) IEC 61000-4-4 (EFT) 40A (5/50ns)
- ◆ Working voltages :5V
- ◆ Protects one bidirectional line
- ◆ Low operating and clamping voltages
- ◆ Solid-state silicon avalanche technology



Applications

- ◆ Notebooks, Desktops, Servers and Video Graphics Cards
- ◆ USB Power & Data Line Protection
- ◆ Monitors and Flat Panel Displays
- ◆ I²C Bus Protection
- ◆ Portable Instrumentation
- ◆ Set Top Box

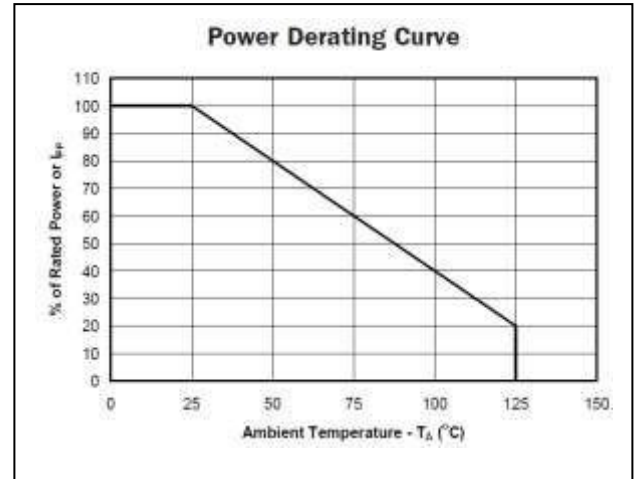
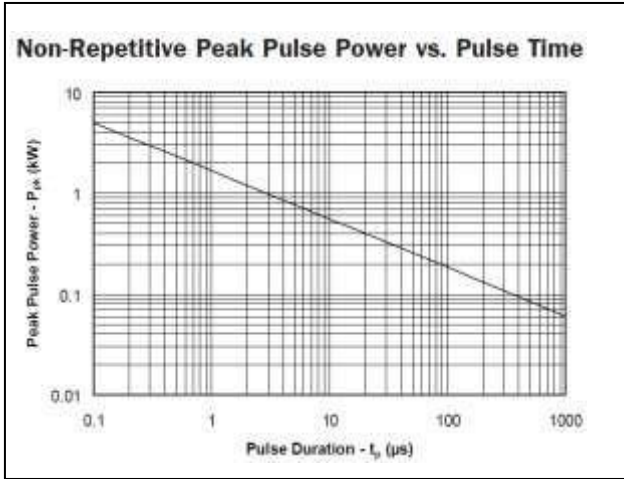
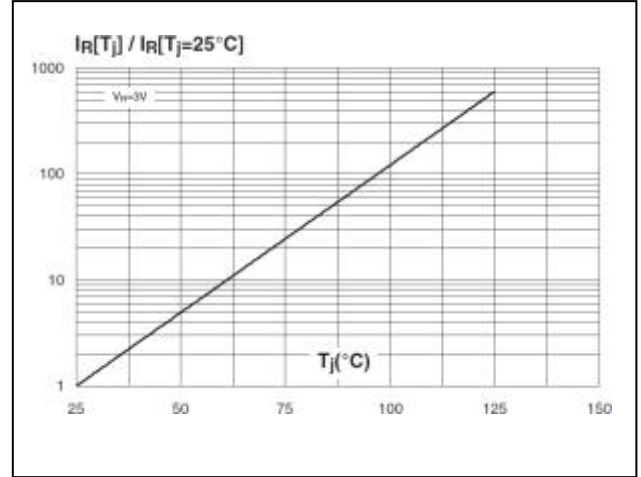
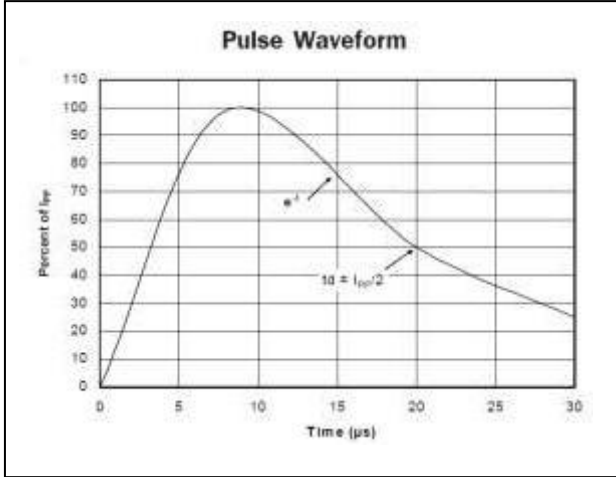
Electrical Characteristics@ Ta=25°C unless otherwise

P/N	VRWM @IR		VBR@ImA	VC@1A	VC@IPP		CJ
	V	μA	V	V	V	A	pF
		MAX	MIN	MAX	MAX		MAX
MSESD5V0S1BA	5	1	5.8	11.8	15	10	10

Maximum Rating @ Ta=25°C unless otherwise specified

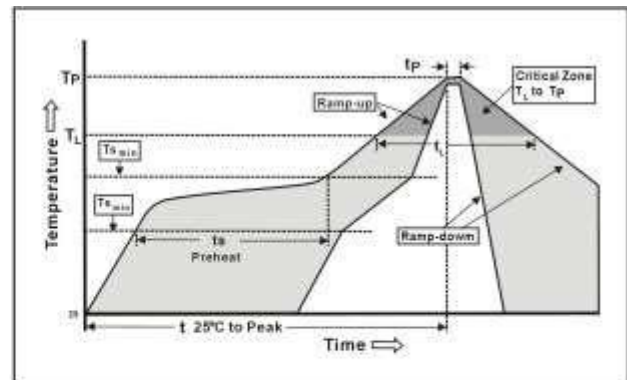
Symbol	Parameter	Ratings	Units
P _{PK}	Peak Pulse Power (tp = 8/20μs)	150	Watts
T _L	Lead Soldering Temperature	260(10sec.)	°C
T _J	Operating Temperature	-55 to +125	°C
T _{STG}	Storage Temperature	-55 to +150	°C

Typical Characteristics@ Ta=25°C unless otherwise specified

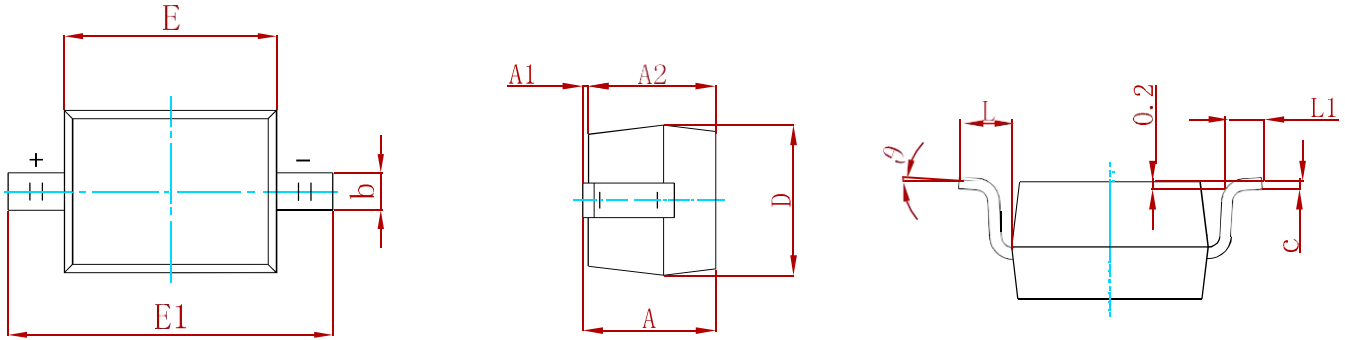


Soldering Parameters

Reflow Condition		Fb – Free assembly
Pre Heat	- Temperature Min ($T_{c(Min)}$)	150°C
	- Temperature Max ($T_{c(Max)}$)	200°C
	- Time (Min to max) (t_p)	60 – 180 secs
Average ramp up rate (Liquidus Temp (T_L) to peak)		3°C/second Max
$T_{c(Max)}$ to T_L - Ramp-up Rate		3°C/second Max
Reflow	- Temperature (T_L) (Liquidus)	217°C
	- Temperature (t_p)	60 – 150 seconds
Peak Temperature (T_p)		250 ^{+0.5} °C
Time within 5°C of actual peak Temperature (t_p)		20 – 40 seconds
Ramp-down Rate		6°C/second Max
Time 25°C to peak Temperature (T_p)		8 minutes Max.
Do not exceed		260°C

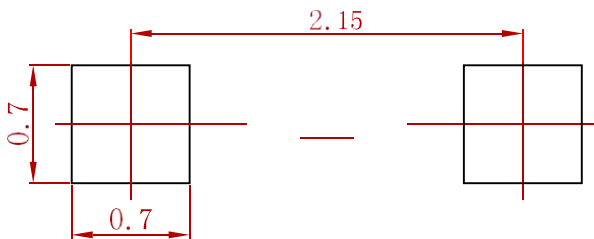


PACKAGE MECHANICAL DATA



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
MSESD5V0S1BA	SOD-323	3000

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