

# MSKSEMI

SEMICONDUCTOR



ESD



TVS



TSS



MOV



GDT

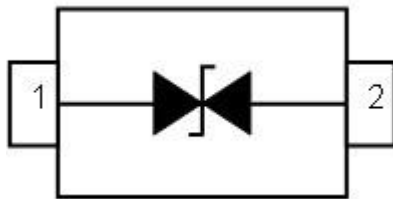


PLED

Product data sheet

**FEATURES**

- ◇ IEC61000-4-2 (ESD) ±30kV (Contact), ±30kV (Air)
- ◇ IEC61000-4-4 (EFT) 40A (5/50ns)
- ◇ Peak power dissipation: 75W (8/20µs)
- ◇ Protects one I/O line
- ◇ Low clamping voltage
- ◇ Working voltages : 5V
- ◇ Low leakage current



SOD-523

**MACHANICAL DATA**

- ◇ SOD-523 package
- ◇ Terminals: Tin plated, solderable per MIL-STD-750, method 2026
- ◇ Packaging: Tape and Reel
- ◇ Reel size: 7 inch
- ◇ MSL3

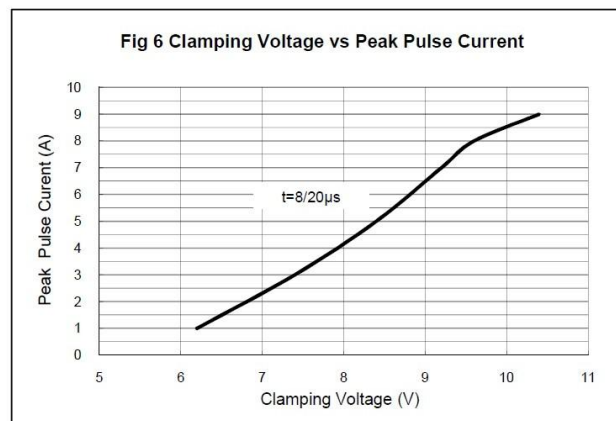
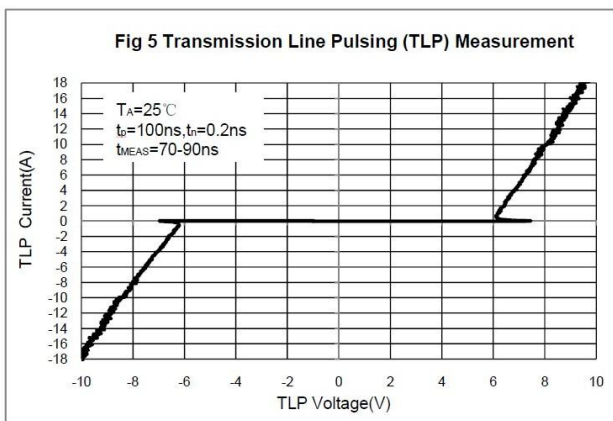
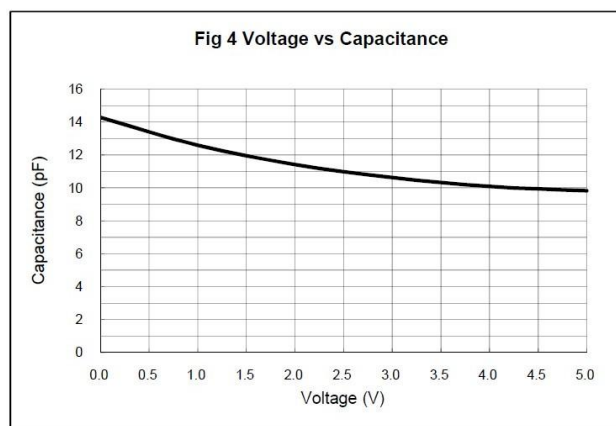
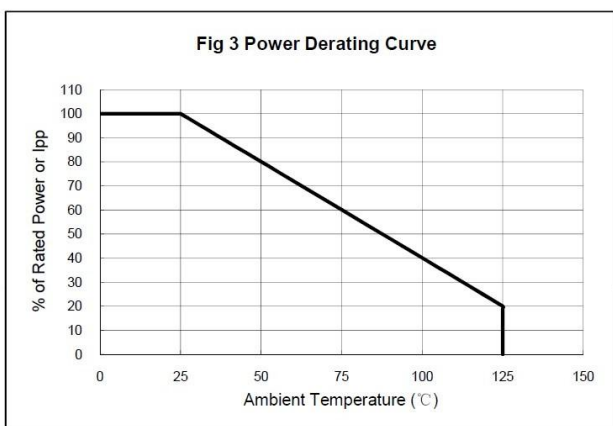
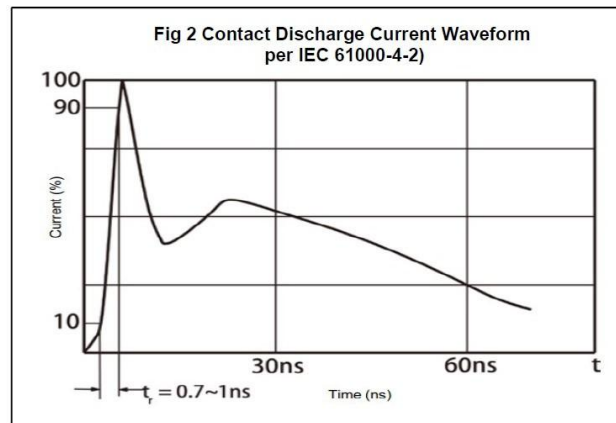
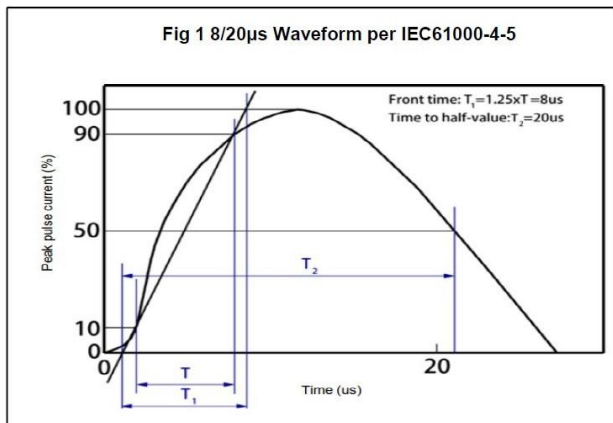
**APPLICATIONS**

- ◇ 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

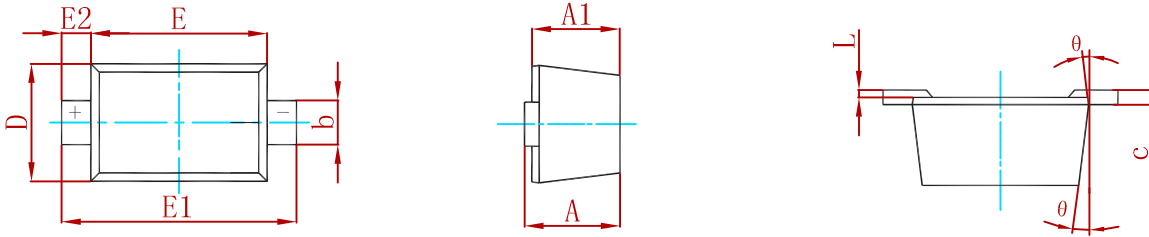
ABSOLUTE MAXIMUM RATING			
Symbol	Parameter	Value	Units
V <sub>ESD</sub>	ESD per IEC 61000-4-2 (Contact)	±30	kV
	ESD per IEC 61000-4-2 (Air)	±30	
P <sub>PP</sub>	Peak Pulse Power (8/20µs)	75	W
T <sub>OPT</sub>	Operating Temperature	-40~150	°C
T <sub>STG</sub>	Storage Temperature	-40~150	°C

ELECTRICAL CHARACTERISTICS (Tamb=25°C)						
Symbol	Parameter	Test Condition	Min	Typ	Max	Units
V <sub>RWM</sub>	Reverse Working Voltage				5.0	V
V <sub>BR</sub>	Reverse Breakdown Voltage	I <sub>T</sub> = 1mA	5.6		9.0	V
I <sub>R</sub>	Reverse Leakage Current	V <sub>RWM</sub> = 5V			1.0	μA
V <sub>C</sub>	Clamping Voltage	I <sub>PP</sub> = 1A, t <sub>p</sub> = 8/20μs			9.5	V
V <sub>C</sub>	Clamping Voltage	I <sub>PPmax</sub> = 5A, t <sub>p</sub> = 8/20μs			15.0	V
C <sub>J</sub>	Junction Capacitance	V <sub>R</sub> = 0V, f = 1MHz			15	pF

**ELECTRICAL CHARACTERISTICS CURVE**

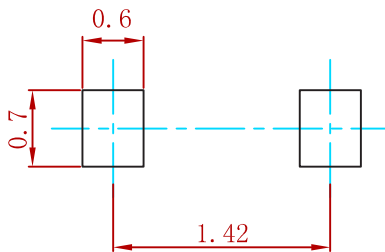


**PACKAGE MECHANICAL DATA**



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.510	0.770	0.020	0.031
A1	0.500	0.700	0.020	0.028
b	0.250	0.350	0.010	0.014
c	0.080	0.150	0.003	0.006
D	0.750	0.850	0.030	0.033
E	1.100	1.300	0.043	0.051
E1	1.500	1.700	0.059	0.067
E2	0.200 REF		0.008 REF	
L	0.010	0.070	0.001	0.003
θ	7° REF		7° REF	

**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
ESD5V0D5B-MS	SOD-523	3000

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