

MSKSEMI

SEMICONDUCTOR



ESD



TVS



TSS



MOV



GDT



PLED

Product data sheet



SOD-523

Marking: LB

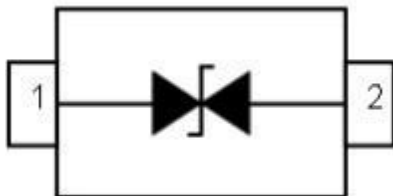
FEATURES

- ✧ IEC61000-4-2 (ESD) $\pm 8\text{kV}$ (Contact), $\pm 15\text{kV}$ (Air)
- ✧ Peak power dissipation: 35W ($8/20\mu\text{s}$)
- ✧ Protects one I/O line
- ✧ Low clamping voltage
- ✧ Working voltage: 5V
- ✧ Low leakage current
- ✧ Low capacitance

MACHANICAL DATA

- ✧ SOD-523 package
- ✧ Terminals: Tin plated, solderable per MIL-STD-750, method 2026
- ✧ Packaging: Tape and Reel
- ✧ Reel size: 7 inch
- ✧ Weight: 0.0018 gram (approx.)

PIN CONFIGURATION



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

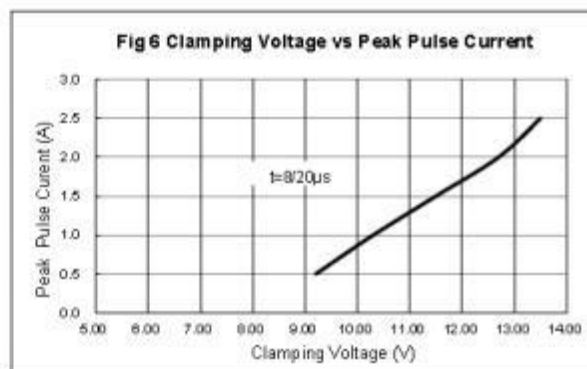
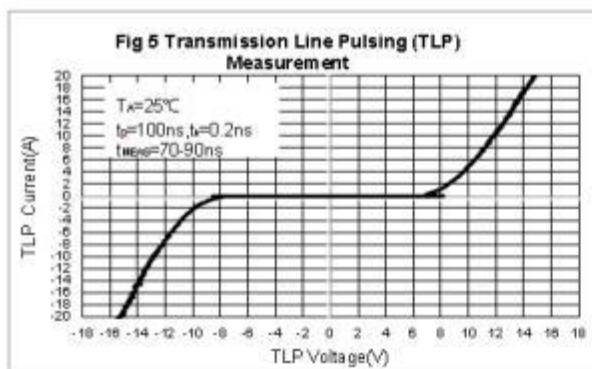
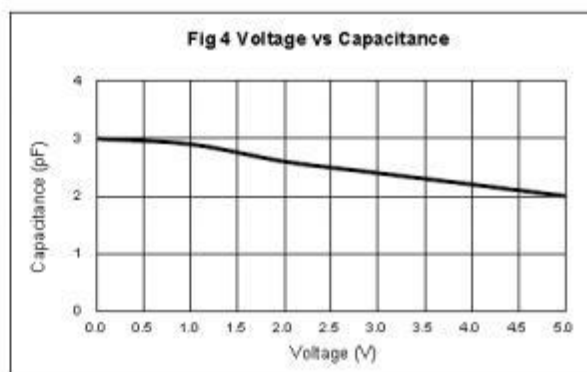
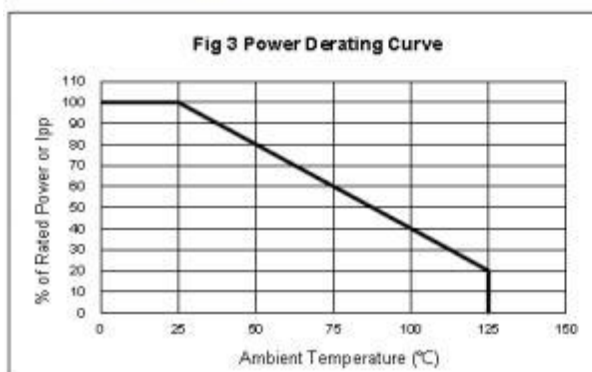
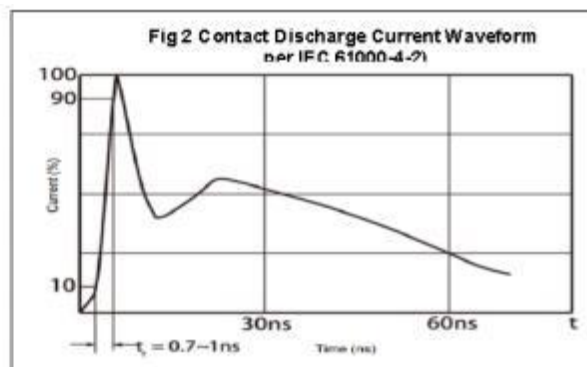
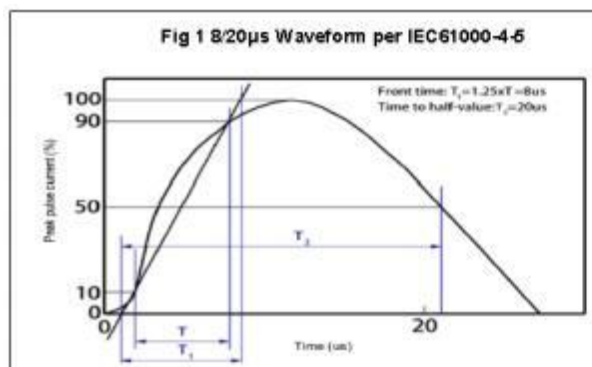
ABSOLUTE MAXIMUM RATING

Symbol	Parameter	Value	Units
V _{ESD}	ESD per IEC 61000-4-2 (Contact)	±8	kV
	ESD per IEC 61000-4-2 (Air)	±15	
P _{PP}	Peak Pulse Power (8/20μs)	35	W
T _{OPT}	Operating Temperature	-55~150	°C
T _{STG}	Storage Temperature	-55~150	°C

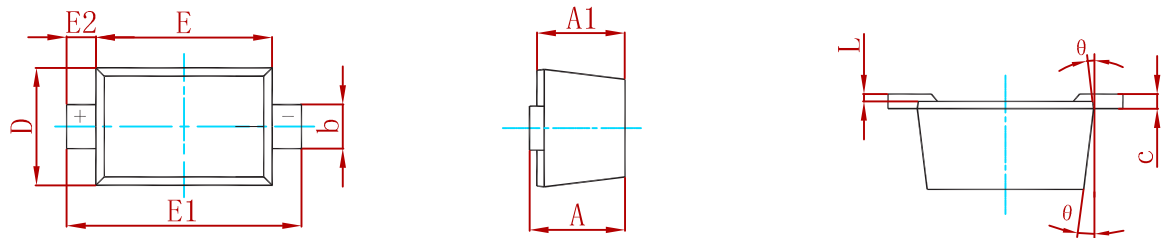
ELECTRICAL CHARACTERISTICS (T_{amb}=25°C)

Symbol	Parameter	Test Condition	Min	Typ	Max	Units
V _{RWM}	Reverse Working Voltage				5.0	V
V _{BR}	Reverse Breakdown Voltage	I _T = 1mA	5.6		9.4	V
I _R	Reverse Leakage Current	V _{RWM} = 5V			2.0	μA
V _C	Clamping Voltage	I _{PP} = 1A, t _p = 8/20μs			10.5	V
		I _{PP} = 2A, t _p = 8/20μs			14.0	V
V _{CTLP}	TLP Clamping Voltage	I _{PP} = 16A IEC61000-4-2 Level 4 equivalent (±8kV Contact, ±15kV Air)		14.5		V
R _{DYN}	Dynamic Resistance	t _p = 100ns		0.3		Ω
C _J	Junction Capacitance	V _R = 0V, f = 1MHz		3.0	3.5	pF

ELECTRICAL CHARACTERISTICS CURVE

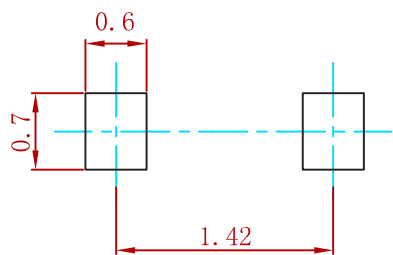


PACKAGE MECHANICAL DATA



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

REEL SPECIFICATION

P/N	PKG	QTY
ESD5B5CU	SOD-523	3000

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