MSKSEMI

SEMICONDUCTOR

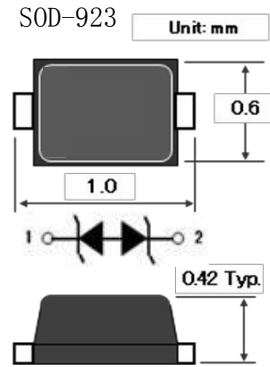| ESD | TVS | TSS | MOV | GDT | PLED |

Product data sheet

SOD−923   Unit: mm

◇ Bi−Directional Transient Voltage Suppressor
◇ Low capacitance and Low Leakage
◇ ESD Protection, IEC61000−4−2 Level 4
◇ SOD923 SMD
◇ RoHS compliant
◇ UL−94 V−0 / Green EMC
◇ Matte Tin Lead finish (Pb−Free)

Ordering Information

P/N	Package	Shipping	Tape wide	Emboss pitch	Tape specification	Notes
ESD9B5VD−MS	SOD923	Tape & Reel 8000pcs /7" Reel	8 mm	2 mm	Conductive	

Absolute Maximum Ratings （Ta = 25 ℃）

Symbol	Parameter	Value	Units
$I_{PP\,*1}$	Maximum Reverse Peak Pulse Current	5.0	A
$V_{ESD-Air}$	ESD Voltage IEC61000−4−2 Air	±15	kV
$V_{ESD-contact}$	ESD Voltage IEC61000−4−2 Contact	±8	kV
T_J	Junction Temperature	150	℃
T_{STG}	Storage Temperature	−55 to +150	℃
P_D	Power Dissipation	150	mW

$*_1 t_P$ =8/20μs

Electrical Characteristics （Ta = 25 ℃）

Symbol	Parameter	Conditions	Min	Typ	Max	Units
V_{RWM}	Reverse Working Peak Voltage	−			5.0	V
V_{BR}	Reverse Breakdown Voltage Pin 1 to 2	$I_T = 1mA$	5.6		8.2	V
I_R	Reverse Current	$V_{RWM} = ±5V$			1.0	μA
C_D	Diode Capacitance	$V_R = 0V, f = 1MHz$		13		pF

Electrical Parameter
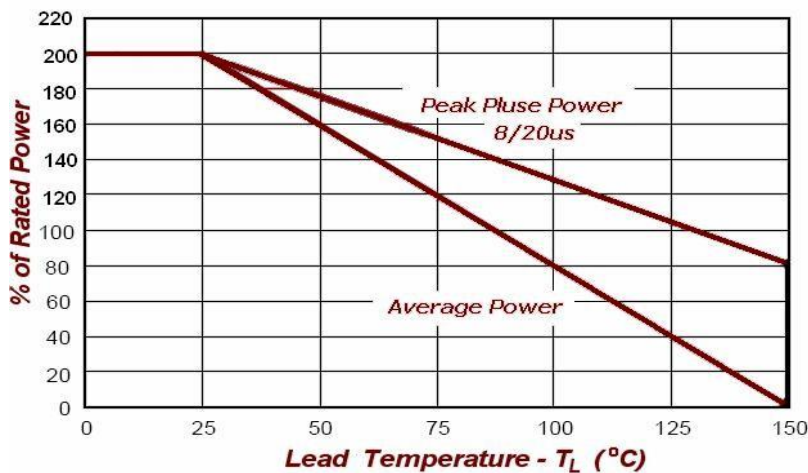
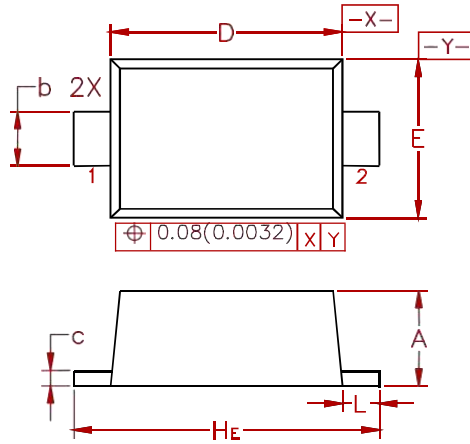| Symbol	Parameter
I_{PP}	Maximum Reverse Peak Pulse Current
V_C	Clamping Voltage @ I_{PP}
V_{RWM}	Working Peak Reverse Voltage
I_R	Maximum Reverse Leakage Current @ V_{RWM}
I_T	Test Current
V_{BR}	Breakdown Voltage @ I_T
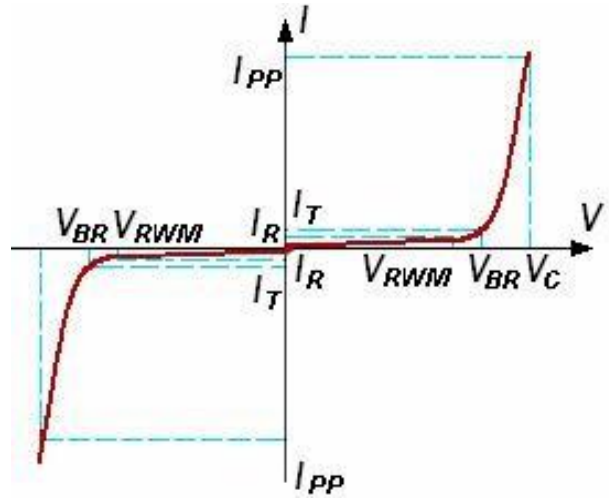
FIG1: Pulse Waveform
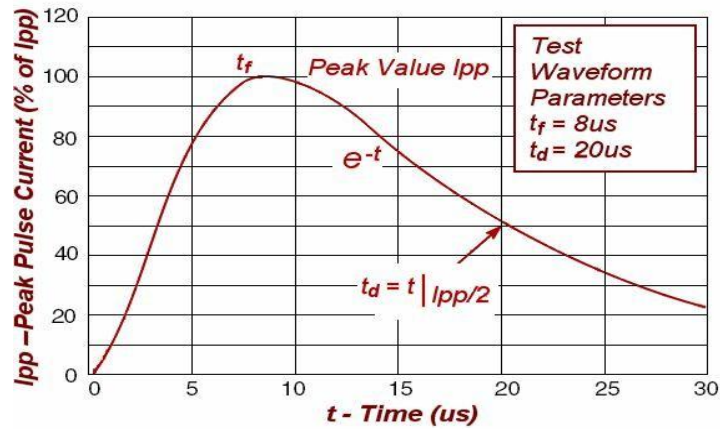
FIG2:Power Derating

PACKAGE MECHANICAL DATA

Dim	Millimeters			Inches		
	Min	Nom	Max	Min	Nom	Max
A	0.36	0.40	0.43	0.014	0.016	0.017
b	0.15	0.20	0.25	0.006	0.008	0.010
c	0.07	0.12	0.17	0.003	0.005	0.007
D	0.75	0.80	0.85	0.030	0.031	0.033
E	0.55	0.60	0.65	0.022	0.024	0.026
H_E	0.95	1.00	1.05	0.037	0.039	0.041
L	0.05	0.10	0.15	0.002	0.004	0.006

Suggested Pad Layout
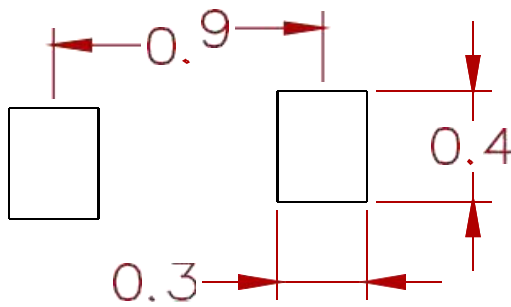
Dimensions: Millimeters

REEL SPECIFICATION

P/N	PKG	QTY
ESD9B5VD-MS	SOD-923	8000

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