MSKSEMI
SEMICONDUCTOR

ESD TVS TSS MOV GDT PLED

Product data sheet

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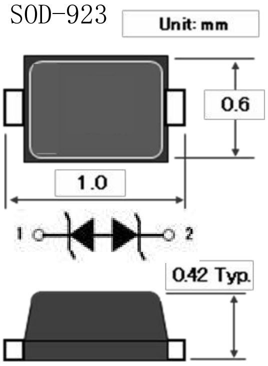
- ◇ Bi-Directional Transient Voltage Suppressor
- ◇ Low capacitance and Low Leakage
- ◇ ESD Protection, IEC61000-4-2 Level 4
- ◇ SOD923 SMD
- ◇ RoHS compliant
- ◇ UL-94 V-0 / Green EMC
- ◇ Matte Tin Lead finish (Pb-Free)



Ordering Information

P/N	Package	Shipping	Tape wide	Emboss pitch	Tape specification	Notes
BTR9S23A10-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

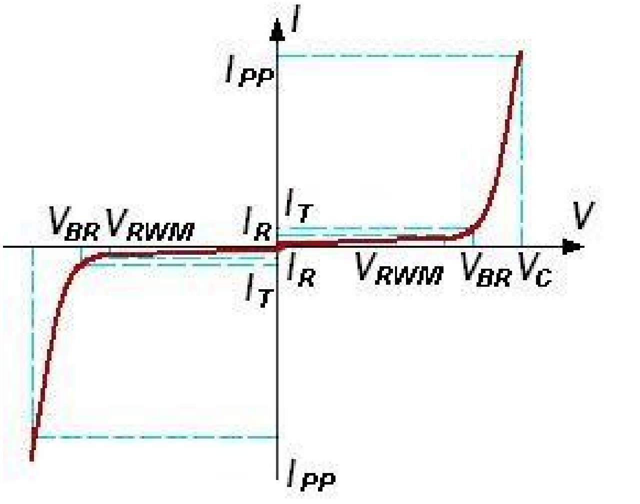


FIG1: Pulse Waveform

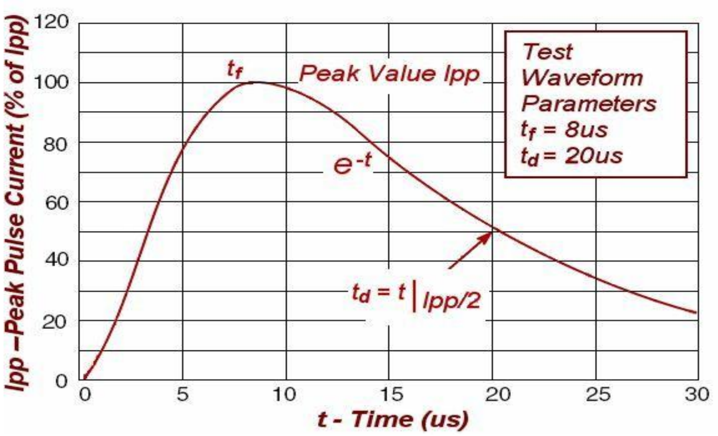
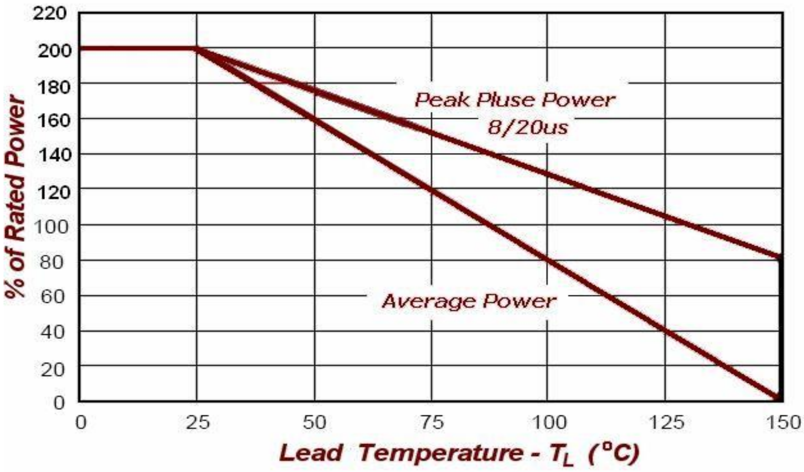
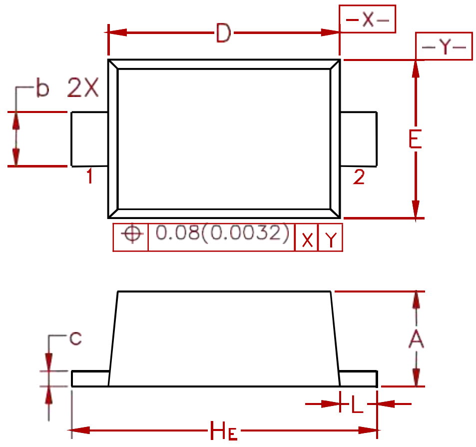


FIG2:Power Derating

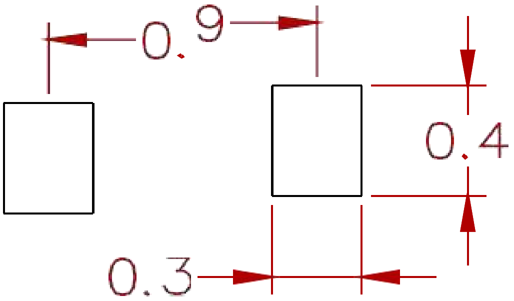


PACKAGE MECHANICAL DATA



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
HE	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
BTR9S23A10-MS	SOD-923	8000

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