

# MSKSEMI

SEMICONDUCTOR



ESD



TVS



TSS



MOV



GDT



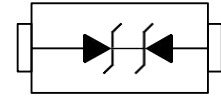
PLED

Product data sheet

[www.msksemi.com](http://www.msksemi.com)

**Feature**

- 44W peak pulse power per line ( $t_p = 8/20\mu s$ )
- SOD-923 package
- Replacement for MLV(0402)
- Bidirectional configurations
- Response time is typically  $< 1ns$
- Low clamping voltage
- RoHS compliant
- Transient protection for data lines to
- IEC61000-4-2(ESD)  $\pm 30KV(air), \pm 30KV(contact)$ ;
- IEC61000-4-4 (EFT) 40A (5/50ns)



SOD-923

**Mechanical Characteristics**

- Lead finish:100% matte Sn(Tin)
- Mounting position: Any
- Qualified max reflow temperature:260°C
- Device meets MSL 1 requirements
- Pure tin plating: 7 ~ 17 um
- Pin flatness: $\leq 3mil$

**Electrical characteristics per line@25°C (unless otherwise specified)**

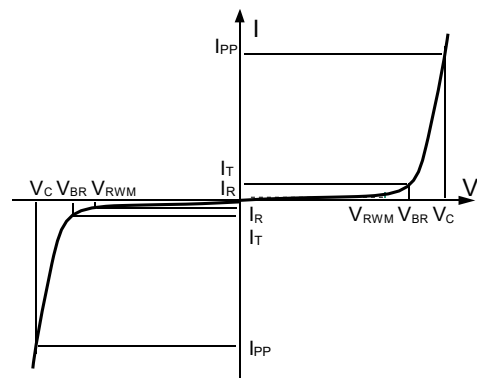
Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Peak Reverse Working Voltage	$V_{RWM}$				3.3	V
Breakdown Voltage	$V_{BR}$	$I_t = 1mA$	5			V
Reverse Leakage Current	$I_R$	$V_{RWM} = 5V T=25^\circ C$			2.5	$\mu A$
Maximum Reverse Peak Pulse Current	$I_{PP}$			2.3		A
Clamping Voltage	$V_C$	$I_{PPMAX}, t_p = 8/20 \mu s$			19	V
Junction Capacitance	$C_j$	$V_R=0V f = 1MHz$		12	18	pF

**Absolute maximum rating@25°C**

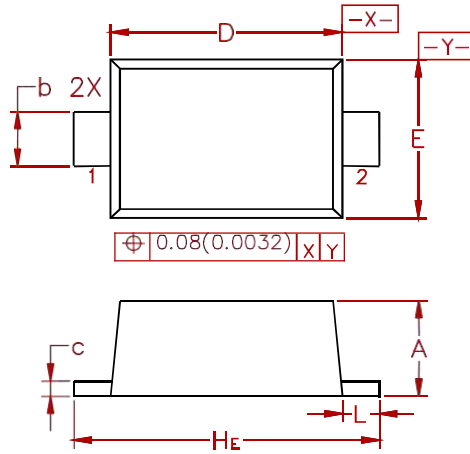
Rating	Symbol	Value	Units
Peak Pulse Power ( $t_p=8/20\mu s$ )	$P_{PP}$	44	W
Operating Temperature	$T_J$	-55 to +150	°C
Storage Temperature	$T_{STG}$	-55 to +150	°C

**Electronics Parameter**

Symbol	Parameter
$V_{RWM}$	Peak Reverse Working Voltage
$I_R$	Reverse Leakage Current @ $V_{RWM}$
$V_{BR}$	Breakdown Voltage @ $I_T$
$I_T$	Test Current
$I_{PP}$	Maximum Reverse Peak Pulse Current
$V_C$	Clamping Voltage @ $I_{PP}$
$P_{PP}$	Peak Pulse Power
$C_J$	Junction Capacitance
$I_F$	Forward Current
$V_F$	Forward Voltage @ $I_F$

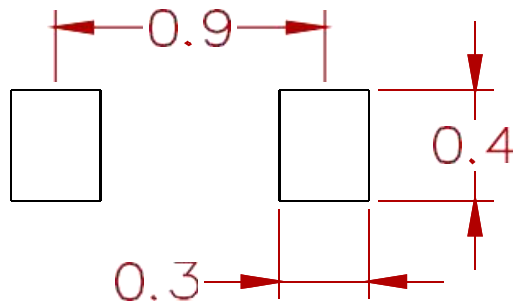


**PACKAGE MECHANICAL DATA**



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
MSESD9B3.3ST5G	SOD-923	8000

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