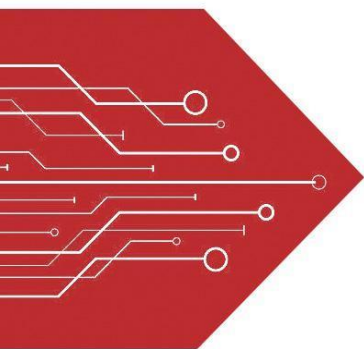


# MSKSEMI

SEMICONDUCTOR



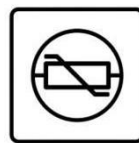
ESD



TVS



TSS



MOV



GDT

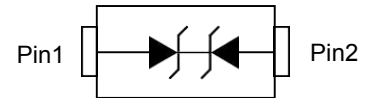


PLED

Product data sheet

### Specification Features:

- Stand-off Voltage: 5V0
- Low Leakage
- Response Time is Typically < 1ns
- IEC61000-4-2 Level 4 ESD Protection
- RoHS Compliant
- Threen EMC
- Matte Tin(Sn) Lead Finish



**Circuit Diagram**

SOD-523

### Absolute Maximum Ratings $T_A = 25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Value	Units
<b>V<sub>pp</sub></b>	IEC61000-4-2(ESD) Air Contact	$\pm 15$ $\pm 8$	KV
<b>ESD</b>	Per Human Body Model	16	KV
<b>P<sub>D</sub></b>	Power Dissipation (Note 1)	150	mW
<b>T<sub>STG</sub></b>	Storage Temperature Range	-55 to +150	°C
<b>T<sub>J</sub></b>	Operating Junction Temperature	+150	°C
<b>T<sub>L</sub></b>	Max Lead Solder Temperature range(10 Second Duration)	260	°C

These ratings are limiting values above which the serviceability of the diode may be impaired. Note 1. FR-5 = 1.0 x 0.75 x 0.62 in.

### Electrical Characteristics $T_A = 25^\circ\text{C}$ unless otherwise noted

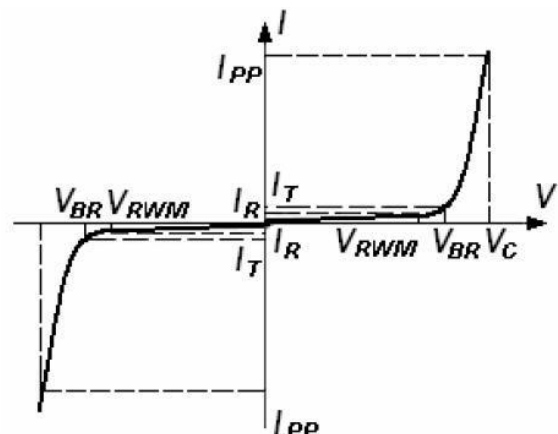
P/N	<b>V<sub>RWM</sub></b> (Volts)	<b>I<sub>R</sub> @ V<sub>RWN</sub></b> ( $\mu\text{A}$ )	<b>V<sub>BR</sub> @ I<sub>T</sub></b> (Note 2) (Volts)		<b>I<sub>T</sub></b> (mA)	<b>I<sub>PP+</sub></b> (A)	<b>V<sub>C</sub> @ Max I<sub>PP+</sub></b> (Volts)	<b>P<sub>PK+</sub></b> (W)	<b>C @</b> <b>V<sub>R</sub> = 0V, f = 1MHz</b> (pF)
	Max	Max	Min	Max		Max	Max	Max	Typ.
PESD5V0S1BB-MS	5.0	1	5.6	7.8	1.0	4	12	48	15

+ Surge current waveform per Figure 1.

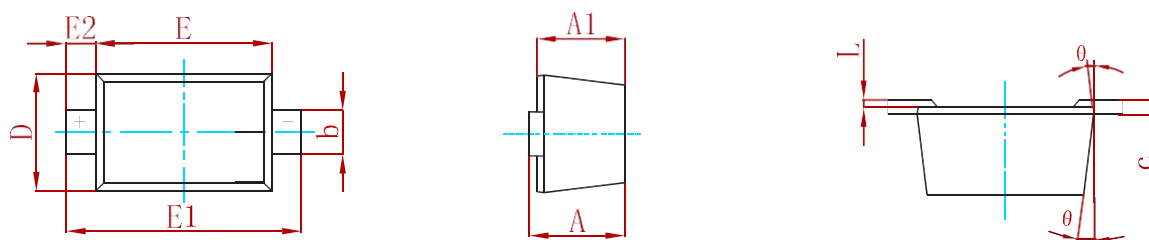
Note 2:  $V_{BR}$  is measured with a pulse test current  $I_T$  at an ambient temperature of  $25^\circ\text{C}$ .

### Electrical Parameter

Symbol	Parameter
<b>I<sub>PP</sub></b>	Maximum Reverse Peak Pulse Current
<b>V<sub>C</sub></b>	Clamping Voltage @ I <sub>PP</sub>
<b>V<sub>RWM</sub></b>	Working Peak Reverse Voltage
<b>I<sub>R</sub></b>	Maximum Reverse Leakage Current @ V <sub>RWM</sub>
<b>I<sub>T</sub></b>	Test Current
<b>V<sub>BR</sub></b>	Breakdown Voltage @ I <sub>T</sub>

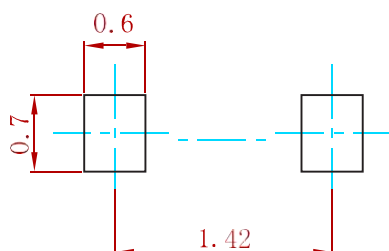


## PACKAGE MECHANICAL DATA



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
PESD5V0S1BB-MS	SOD-523	3000

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