

TECHNICAL DATA  
DATA SHEET 4562, REV. B

## HERMETIC POWER SCHOTTKY RECTIFIER

### Very Low Forward Voltage Drop

#### Applications:

- Switching Power Supply • Converters • Free-Wheeling Diodes • Polarity Protection Diode

#### Features:

- Very Low Forward Voltage Drop
- High Efficiency
- High Frequency Application
- Guard Ring for Enhanced Durability and Long Term Reliability

#### MAXIMUM RATINGS

ALL RATINGS ARE @  $T_c = 25^\circ\text{C}$  UNLESS OTHERWISE SPECIFIED.

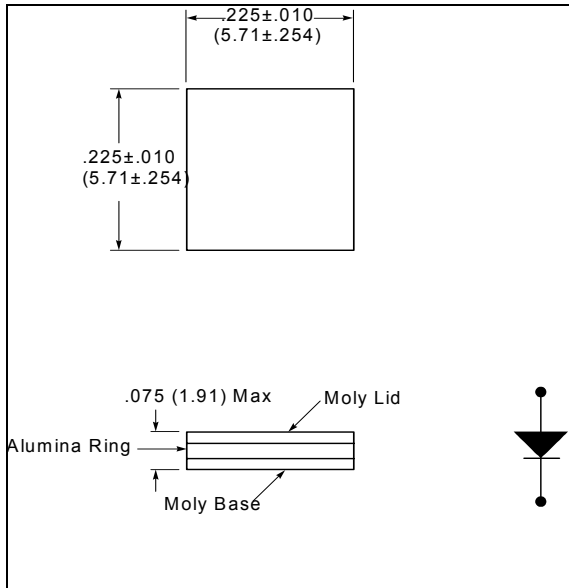
RATING	SYMBOL	MAX.	UNITS
PEAK INVERSE VOLTAGE	PIV	15	Volts
MAXIMUM DC OUTPUT CURRENT (With Cathode Maintained @ $T_c=70^\circ\text{C}$ )	$I_o$	7.5	Amps
MAXIMUM NONREPETITIVE FORWARD SURGE CURRENT ( $t=8.3\text{ms}$ , Sine)	$I_{FSM}$	140	Amps
MAXIMUM THERMAL RESISTANCE (Junction to Mounting Surface, Cathode)	$R_{\theta JC}$	1.7	$^\circ\text{C/W}$
MAXIMUM OPERATING TEMPERATURE RANGE	$T_{op}$	-65 to + 100	$^\circ\text{C}$
MAXIMUM STORAGE TEMPERATURE RANGE	$T_{stg}$	-65 to + 100	$^\circ\text{C}$

#### ELECTRICAL CHARACTERISTICS

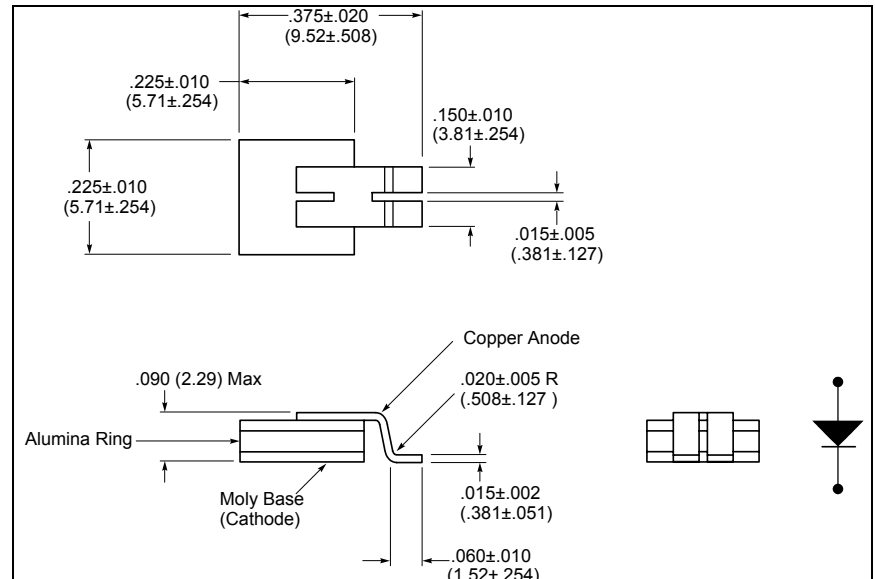
CHARACTERISTIC	SYMBOL	MAX.	UNITS
MAXIMUM FORWARD VOLTAGE DROP, Pulsed ( $I_f = 7.5$ Amps) $T_J = 25^\circ\text{C}$ $T_J = 75^\circ\text{C}$	$V_f$	0.37 0.33	Volts
MAXIMUM REVERSE CURRENT ( $I_r$ @ 15V PIV) $T_J = 25^\circ\text{C}$ $T_J = 100^\circ\text{C}$	$I_r$	3.5 170	mA
MAXIMUM JUNCTION CAPACITANCE ( $V_r=5\text{V}$ )	$C_T$	600	pF

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**MECHANICAL DIMENSIONS: In Inches / mm**



**SHD-1**



**SHD-1B**

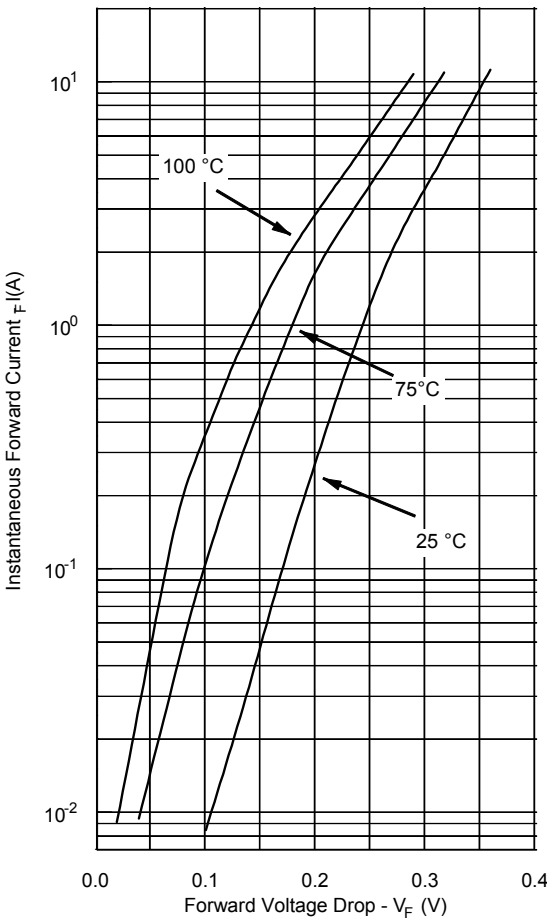
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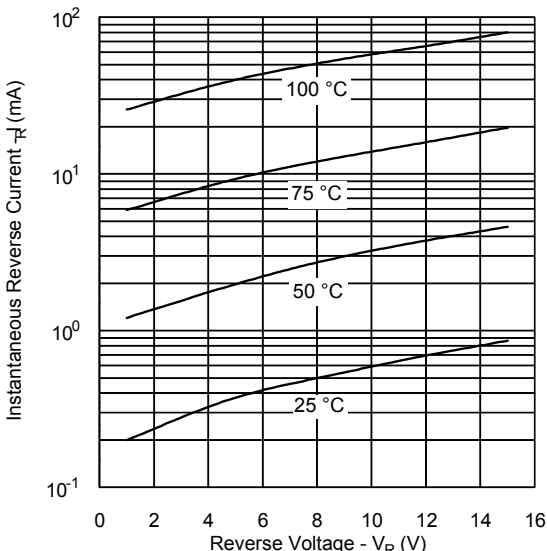
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Note: Vf characteristics are for bare die only.

**Typical Forward Characteristics**



**Typical Reverse Characteristics**



**Typical Junction Capacitance**

