

TECHNICAL DATA  
DATA SHEET 1147, REV. A

## HERMETIC SCHOTTKY POWER RECTIFIER Low Voltage Drop

**DESCRIPTION:** A 45 VOLT, 7.5 AMP, POWER SCHOTTKY RECTIFIER IN A HERMETIC SHD-2/2B PACKAGE.

### MAXIMUM RATINGS

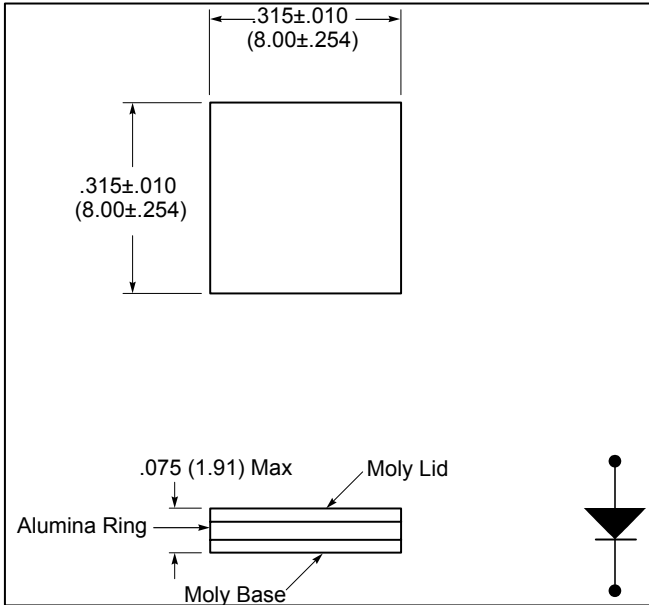
ALL RATINGS ARE @  $T_c = 25\text{ }^\circ\text{C}$  UNLESS OTHERWISE SPECIFIED.

RATING	SYMBOL	MAX.	UNITS
PEAK INVERSE VOLTAGE	PIV	45	Volts
MAXIMUM DC OUTPUT CURRENT (With Cathode Maintained @ $T_c=100\text{ }^\circ\text{C}$ )	$I_o$	7.5	Amps
MAXIMUM NONREPETITIVE FORWARD SURGE CURRENT ( $t = 8.3\text{ms}$ , Sine)	$I_{FSM}$	140	Amps
MAXIMUM JUNCTION CAPACITANCE ( $V_r = 5\text{V}$ )	$C_T$	400	pF
MAXIMUM THERMAL RESISTANCE (Junction to Mounting Surface, Cathode)	$R_{\theta JC}$	1.7	$^\circ\text{C/W}$
MAXIMUM OPERATING TEMPERATURE RANGE	Top	-65 to + 175	$^\circ\text{C}$
MAXIMUM STORAGE TEMPERATURE RANGE	Tstg	-65 to + 175	$^\circ\text{C}$

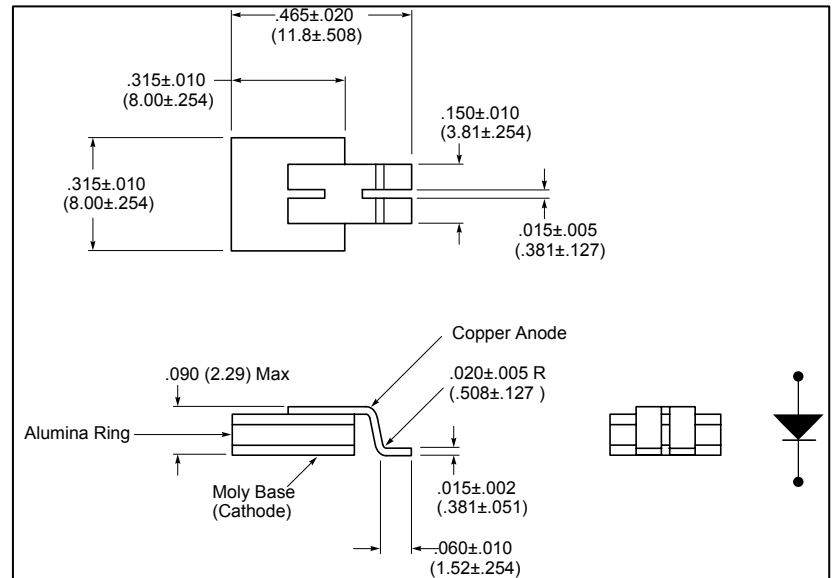
### ELECTRICAL CHARACTERISTICS

CHARACTERISTIC	SYMBOL	MAX.	UNITS
MAXIMUM FORWARD VOLTAGE DROP, Pulsed ( $I_f = 7.5\text{ Amps}$ ) $T_J = 25\text{ }^\circ\text{C}$ $T_J = 125\text{ }^\circ\text{C}$	$V_f$	0.64 0.57	Volts
MAXIMUM REVERSE CURRENT ( $I_r$ @ 45V PIV) $T_J = 25\text{ }^\circ\text{C}$ $T_J = 125\text{ }^\circ\text{C}$	$I_r$	0.2 7.5	mA

**MECHANICAL DIMENSIONS: In Inches / mm**



**SHD-2**



**SHD-2B**

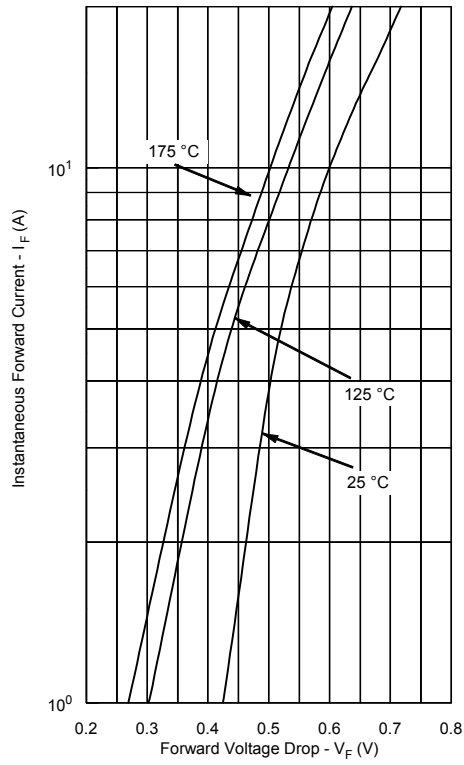
**PINOUT TABLE**

TYPE	PIN 1 (Base)	PIN 2
SINGLE RECTIFIER in a Surface Mount Package	CATHODE	ANODE

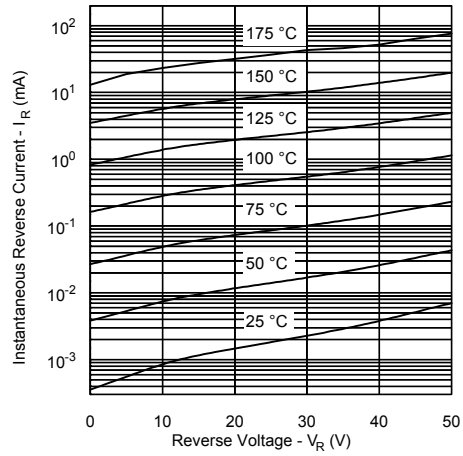
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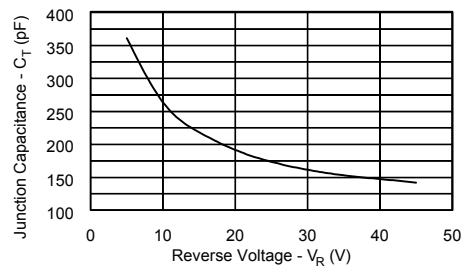
Typical Forward Characteristics



Typical Reverse Characteristics



Typical Junction Capacitance



$V_F @ 1A -55^\circ C$  typical = 0.52V