

TECHNICAL DATA  
DATA SHEET 1148, REV. A

## HERMETIC POWER SCHOTTKY RECTIFIER Low Forward Voltage Drop

**DESCRIPTION:** A 45 VOLT, 3.0 AMP, POWER SCHOTTKY RECTIFIER IN A HERMETIC SHD-1/1B PACKAGE.

### MAXIMUM RATINGS

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

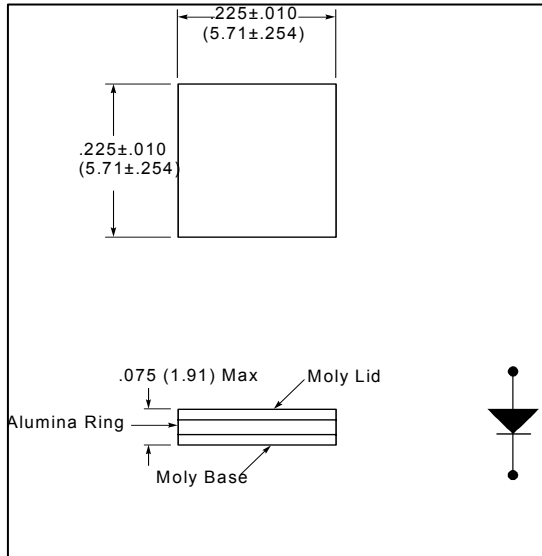
RATING	SYMBOL	MAX.	UNITS
PEAK INVERSE VOLTAGE	PIV	45	Volts
MAXIMUM DC OUTPUT CURRENT (With Cathode Maintained @ $T_C=100\text{ }^\circ\text{C}$ )	$I_O$	3.0	Amps
MAXIMUM NONREPETITIVE FORWARD SURGE CURRENT ( $t=8.3\text{ms}$ , Sine)	$I_{FSM}$	55	Amps
MAXIMUM THERMAL RESISTANCE (Junction to Mounting Surface, Cathode)	$R_{\theta JC}$	3.7	$^\circ\text{C/W}$
MAXIMUM OPERATING TEMPERATURE RANGE	Top/Tstg	-65 to + 175	$^\circ\text{C}$
MAXIMUM STORAGE TEMPERATURE RANGE	Top/Tstg	-65 to + 175	$^\circ\text{C}$

### ELECTRICAL CHARACTERISTICS

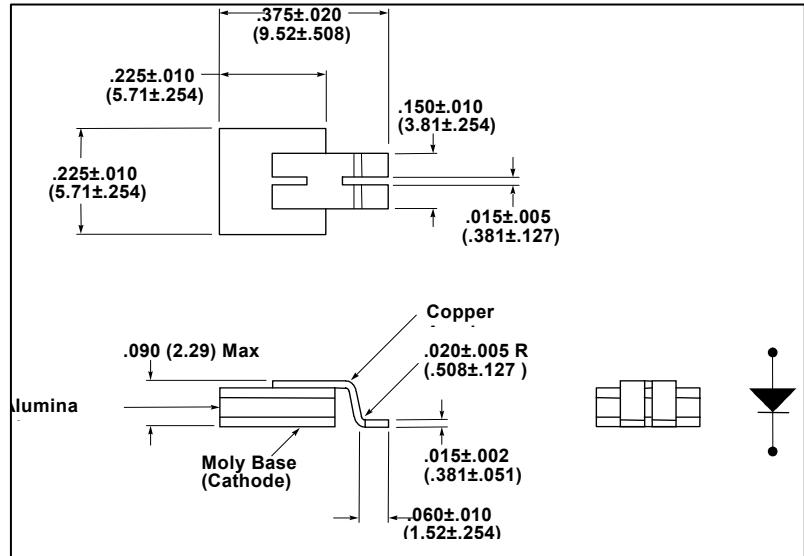
CHARACTERISTIC	SYMBOL	MAX.	UNITS
MAXIMUM FORWARD VOLTAGE DROP, Pulsed ( $I_f = 3.0\text{ Amps}$ ) $T_J = 25\text{ }^\circ\text{C}$ $T_J = 125\text{ }^\circ\text{C}$	$V_f$	0.64 0.57	Volts
MAXIMUM REVERSE CURRENT ( $I_r @ 45\text{V PIV}$ ) $T_J = 25\text{ }^\circ\text{C}$ $T_J = 125\text{ }^\circ\text{C}$	$I_r$	0.08 3.0	mA
MAXIMUM JUNCTION CAPACITANCE ( $V_r=5\text{V}$ )	$C_T$	160	pF

**SENSITRON**  
**DATA SHEET 1148, REV. A**

**MECHANICAL DIMENSIONS: In Inches / mm**



**SHD-1**



**SHD-1B**

**PINOUT TABLE**

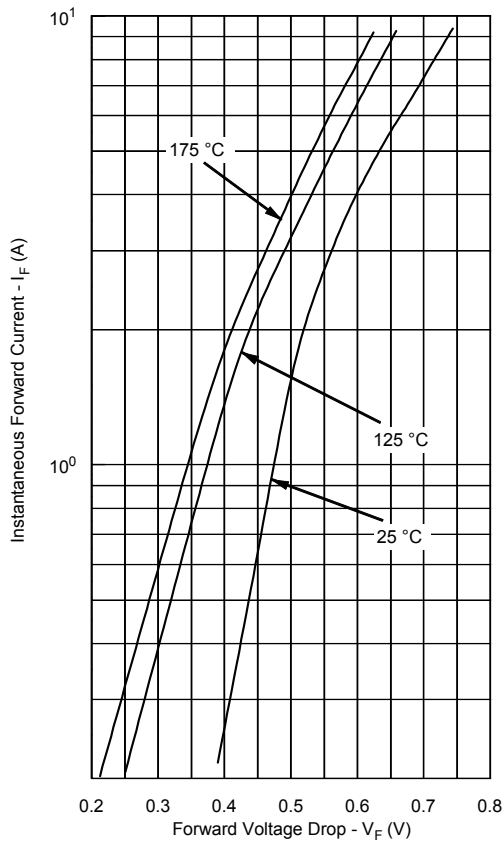
TYPE	PIN 1 (Base)	PIN 2
SINGLE RECTIFIER in a Surface Mount Package	CATHODE	ANODE

**DISCLAIMER:**

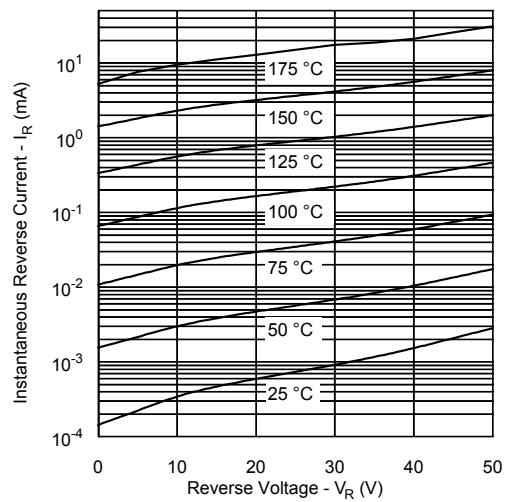
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$V_F @ 1A -55^\circ C \text{ typical} = 0.56V$

**Typical Forward Characteristics**



**Typical Reverse Characteristics**



**Typical Junction Capacitance**

