

**SENSITRON**  
**SEMICONDUCTOR**

TECHNICAL DATA  
DATA SHEET 748, REV. B

**POWER SCHOTTKY RECTIFIER**  
**Very Low Voltage Drop**

**DESCRIPTION:** 45 VOLT, 15 AMP, POWER SCHOTTKY RECTIFIER IN A HERMETIC SHD-1/1B PACKAGE.

**MAXIMUM RATINGS**

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

RATING	SYMBOL	MAX.	UNITS
PEAK INVERSE VOLTAGE	PIV	45	Volts
MAXIMUM DC OUTPUT CURRENT (With Cathode Maintained @ $T_C=100^\circ\text{C}$ )	$I_O$	15	Amps
MAXIMUM NONREPETITIVE FORWARD SURGE CURRENT ( $t=8.3\text{ms}$ , Sine)	$I_{FSM}$	280	Amps
MAXIMUM JUNCTION CAPACITANCE ( $V_f=5\text{V}$ )	$C_T$	800	pF
MAXIMUM THERMAL RESISTANCE (Junction to Mounting Surface, Cathode)	$R_{\theta JC}$	1.7	$^\circ\text{C/W}$
MAXIMUM OPERATING AND STORAGE TEMPERATURE RANGE	Top/Tstg	-65 to + 150	$^\circ\text{C}$

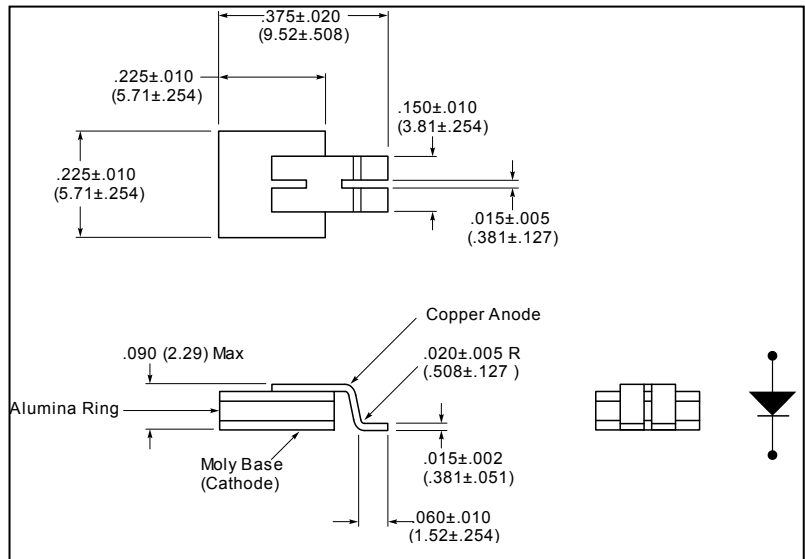
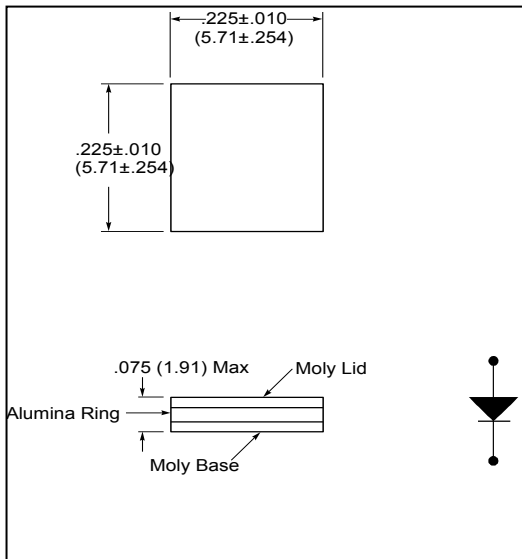
**ELECTRICAL CHARACTERISTICS**

CHARACTERISTIC	SYMBOL	MAX.	UNITS
MAXIMUM FORWARD VOLTAGE DROP, Pulsed ( $I_f = 15\text{ Amps}$ ) $T_J = 25^\circ\text{C}$ $T_J = 125^\circ\text{C}$	$V_f$	0.56 0.51	Volts
MAXIMUM REVERSE CURRENT ( $I_r @ 45\text{V}$ ) $T_J = 25^\circ\text{C}$ $T_J = 125^\circ\text{C}$	$I_r$	1.5 70	mA

SENSITRON

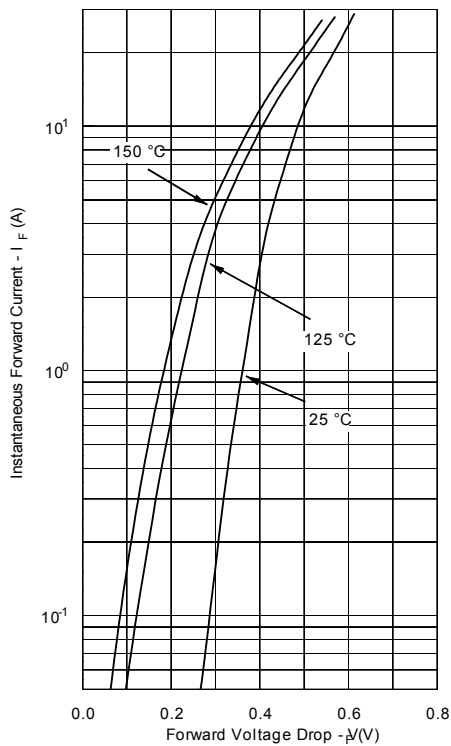
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MECHANICAL DIMENSIONS: In Inches / mm



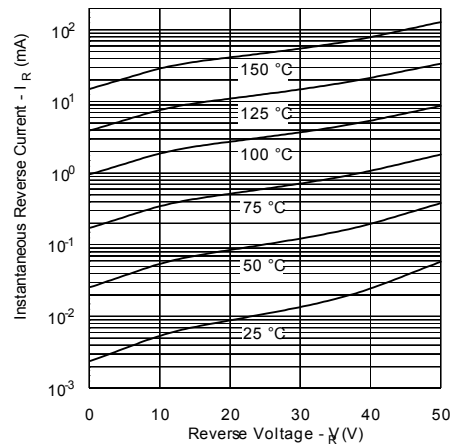
**SHD-1**

Typical Forward Characteristics

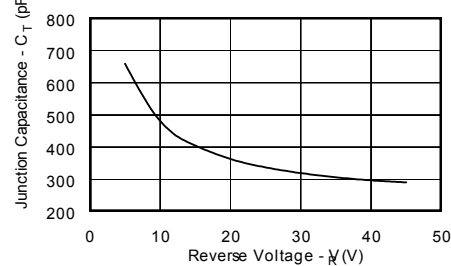


**SHD-1B**

Typical Reverse Characteristics



Typical Junction Capacitance



Note:  $V_F$  Curves are shown for die only.

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