

TECHNICAL DATA  
DATA SHEET 630, REV. A

## HERMETIC POWER SCHOTTKY RECTIFIER Very Low Voltage Drop

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

**MAXIMUM RATINGS**

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

RATING / CONDITION	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 JUNCTION CAPACITANCE ( $V_r=5\text{V}$ )	$C_T$	160	pF
MAXIMUM THERMAL RESISTANCE (Junction to Mounting Surface, Cathode)	$R_{\theta JC}$	3.7	$^\circ\text{C/W}$
MAXIMUM OPERATING AND STORAGE TEMPERATURE RANGE	Top/Tstg	-65 to +150	$^\circ\text{C}$

**ELECTRICAL CHARACTERISTICS**

CHARACTERISTIC			
MAXIMUM FORWARD VOLTAGE DROP, Pulsed ( $I_f = 3.0\text{ Amps}$ ) $T_J = 25\text{ }^\circ\text{C}$ $T_J = 125\text{ }^\circ\text{C}$	$V_f$	0.56 0.51	Volts
MAXIMUM REVERSE CURRENT ( $I_r @ 45\text{V PIV}$ ) $T_J = 25\text{ }^\circ\text{C}$ $T_J = 125\text{ }^\circ\text{C}$	$I_r$	0.3 14	mA

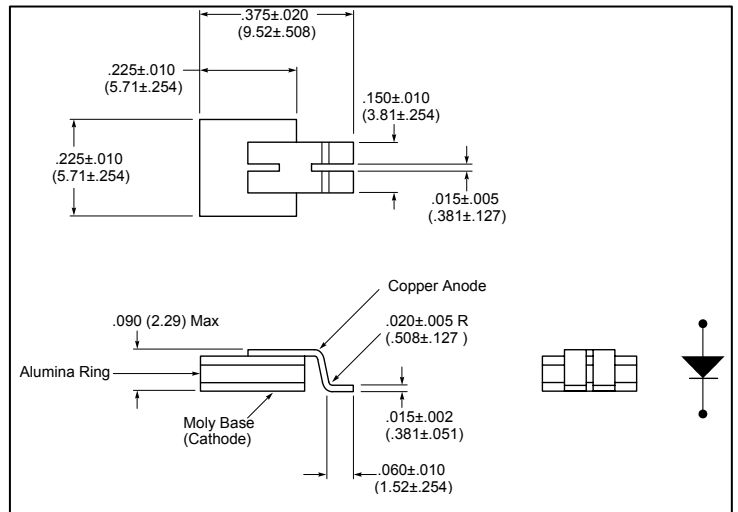
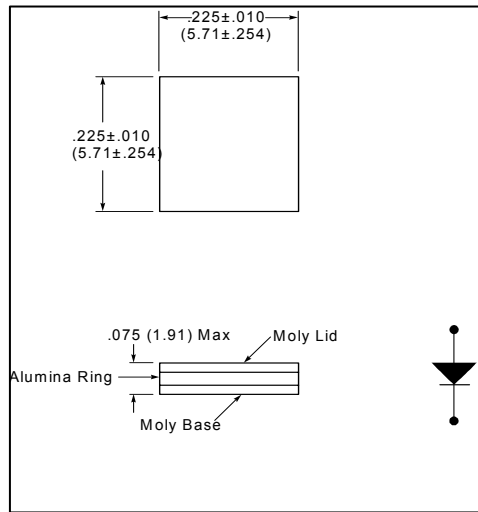
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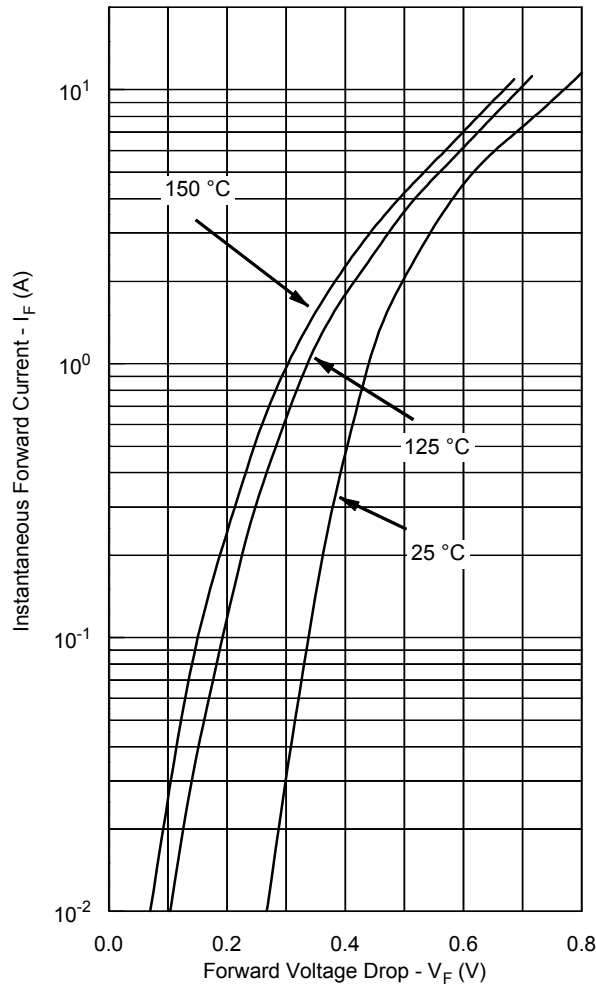
MECHANICAL DIMENSIONS: In Inches / mm

SHD-1B

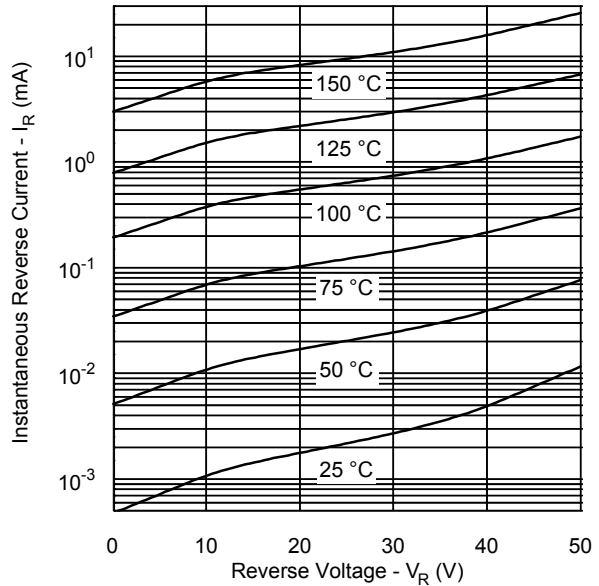
SHD-1



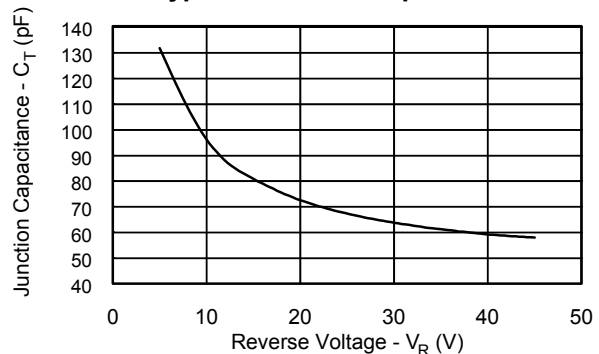
Typical Forward Characteristics



Typical Reverse Characteristics



Typical Junction Capacitance



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