

**SENSITRON**  
**SEMICONDUCTOR**

TECHNICAL DATA  
 DATA SHEET 697, REV. A.1

**HERMETIC POWER SCHOTTKY RECTIFIER**  
**175°C Maximum Operation Temperature**

**DESCRIPTION:** A 200 VOLT, 120 AMP, POWER SCHOTTKY RECTIFIER IN A HERMETIC SHD-3 PACKAGE.

**MAXIMUM RATINGS**

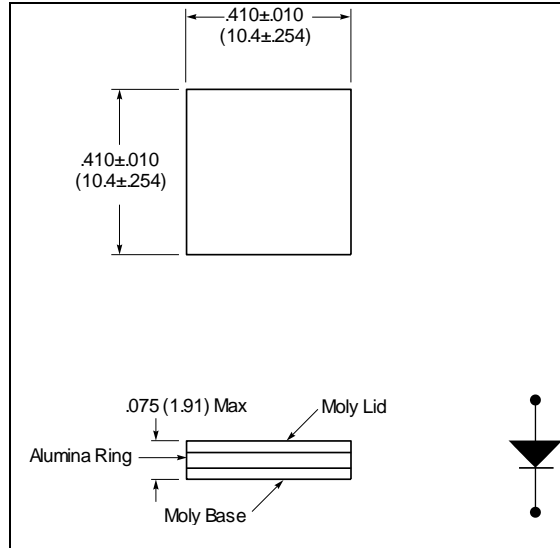
ALL RATINGS ARE @  $T_C = 25^\circ\text{C}$  UNLESS OTHERWISE SPECIFIED.

RATING	SYMBOL	MAX.	UNITS
PEAK INVERSE VOLTAGE	PIV	200	Volts
MAXIMUM DC OUTPUT CURRENT (With Cathode Maintained @ $T_C=100^\circ\text{C}$ )	$I_o$	120	Amps
MAXIMUM NONREPETITIVE FORWARD SURGE CURRENT (t=10ms, Sine)	$I_{FSM}$	1650	Amps
MAXIMUM JUNCTION CAPACITANCE ( $V_r=5\text{V}$ )	$C_T$	1800	pF
MAXIMUM THERMAL RESISTANCE (Junction to Mounting Surface, Cathode)	$R_{\theta JC}$	0.38	$^\circ\text{C/W}$
MAXIMUM OPERATING AND STORAGE TEMPERATURE RANGE	Top/Tstg	-65 to +175	$^\circ\text{C}$

**ELECTRICAL CHARACTERISTICS**

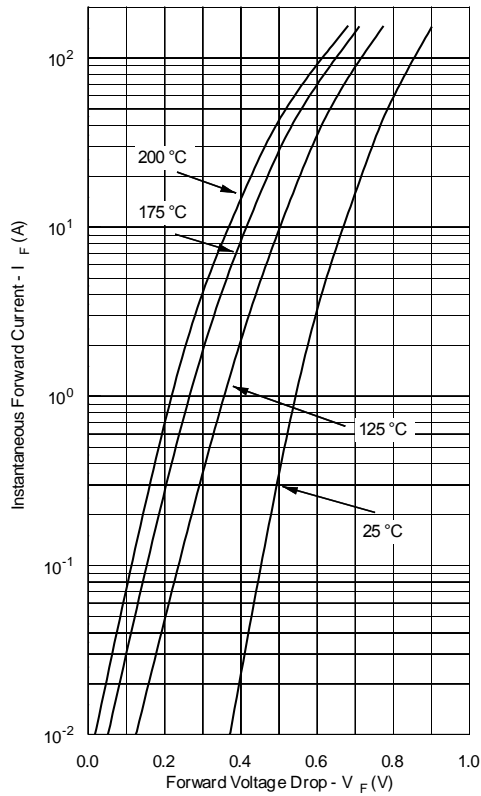
CHARACTERISTIC			
MAXIMUM FORWARD VOLTAGE DROP, Pulsed ( $I_f = 120$ Amps)	$V_f$	$T_J = 25^\circ\text{C}$	Volts
		$T_J = 125^\circ\text{C}$	
MAXIMUM REVERSE CURRENT ( $I_r$ @ 200 V PIV)	$I_r$	$T_J = 25^\circ\text{C}$	mA
		$T_J = 125^\circ\text{C}$	

**MECHANICAL DIMENSIONS: In Inches / mm**

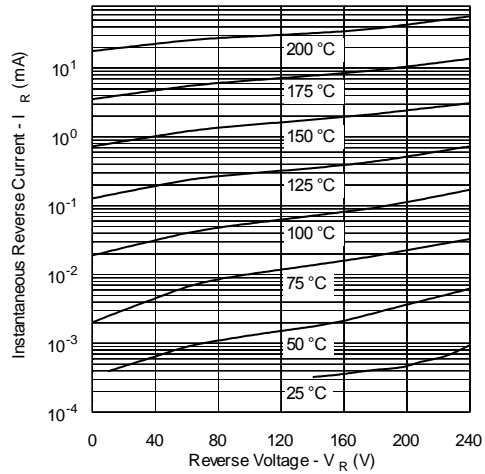


**SHD-3**

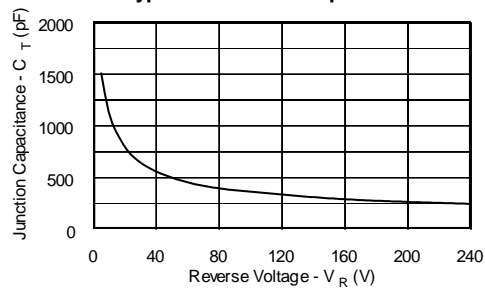
**Typical Forward Characteristics**



**Typical Reverse Characteristics**



**Typical Junction Capacitance**



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**PART ORDERING INFORMATION:**

**SHD114646 XX X**

Part Number

**Screening Level (blank is no screening):**

Suffix	Screened in Accordance with:
blank	No screening level
SX*	MIL-PRF-19500, TX Level
SV*	MIL-PRF-19500, TXV Level
SS*	MIL-PRF-19500, S Level

**QCI (blank is no QCI):**

Suffix	Inspection in Accordance with:
blank	No QCI
Q*	MIL-PRF-19500 QCI

\*The 200V schottky diodes may be de-rated to 170V. In addition, PDA requirement may be modified to not include delta removals for reverse leakage current.

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