

SENSITRON
SEMICONDUCTOR

TECHNICAL DATA
DATA SHEET 864, REV. B

HERMETIC POWER SCHOTTKY RECTIFIER
Very Low Forward Voltage Drop

Applications:

- Switching Power Supply • Converters • Free-Wheeling Diodes • Polarity Protection Diode

Features:

- Very Low Forward Voltage Drop
- High Efficiency
- High Frequency Application
- Guard Ring for Enhanced Durability and Long Term Reliability

MAXIMUM RATINGS

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

RATING	SYMBOL	MAX.	UNITS
PEAK INVERSE VOLTAGE	PIV	15	Volts
MAXIMUM DC OUTPUT CURRENT (With Cathode Maintained @ $T_C=70\text{ }^\circ\text{C}$)	I_o	15	Amps
MAXIMUM NONREPETITIVE FORWARD SURGE CURRENT ($t=8.3\text{ms}$, Sine)	I_{FSM}	280	Amps
MAXIMUM THERMAL RESISTANCE (Junction to Mounting Surface, Cathode)	$R_{\theta JC}$	0.85	$^\circ\text{C/W}$
MAXIMUM OPERATING TEMPERATURE RANGE	T_{op}	-55 to + 100	$^\circ\text{C}$
MAXIMUM STORAGE TEMPERATURE RANGE	T_{stg}	-55 to + 100	$^\circ\text{C}$

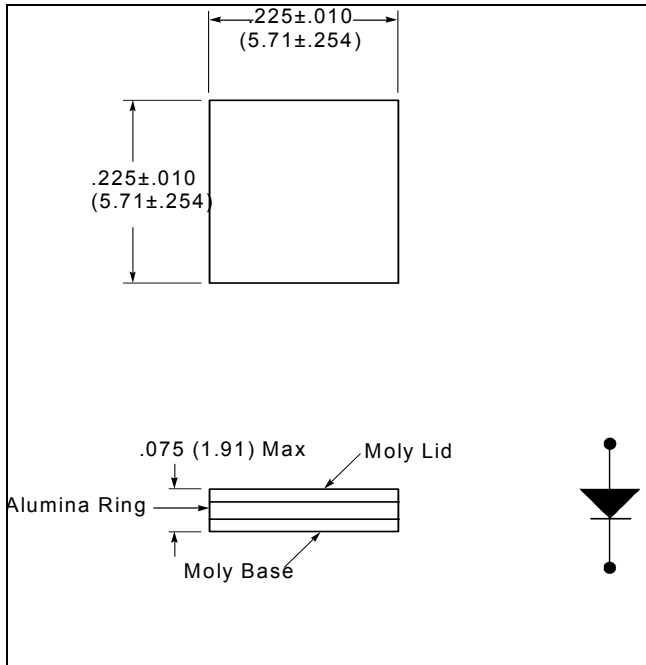
ELECTRICAL CHARACTERISTICS

CHARACTERISTIC	SYMBOL	MAX.	UNITS
MAXIMUM FORWARD VOLTAGE DROP, Pulsed ($I_f = 15\text{ Amps}$) $T_J = 25\text{ }^\circ\text{C}$ $T_J = 75\text{ }^\circ\text{C}$	V_f	0.37 0.33	Volts
MAXIMUM REVERSE CURRENT ($I_r @ 15\text{V PIV}$) $T_J = 25\text{ }^\circ\text{C}$ $T_J = 100\text{ }^\circ\text{C}$	I_r	7.0 340	mA
MAXIMUM JUNCTION CAPACITANCE ($V_r=5\text{V}$)	C_T	1200	pF

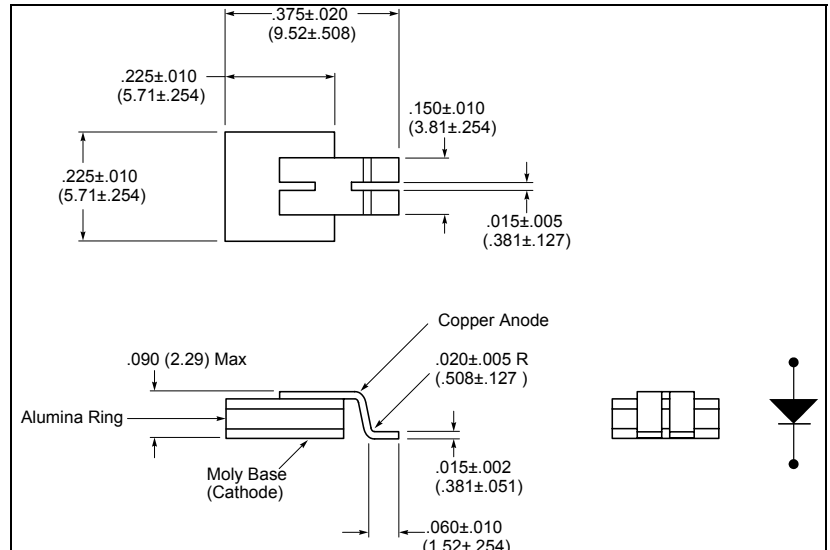
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MECHANICAL DIMENSIONS: In Inches / mm

SHD-1



SHD-1B



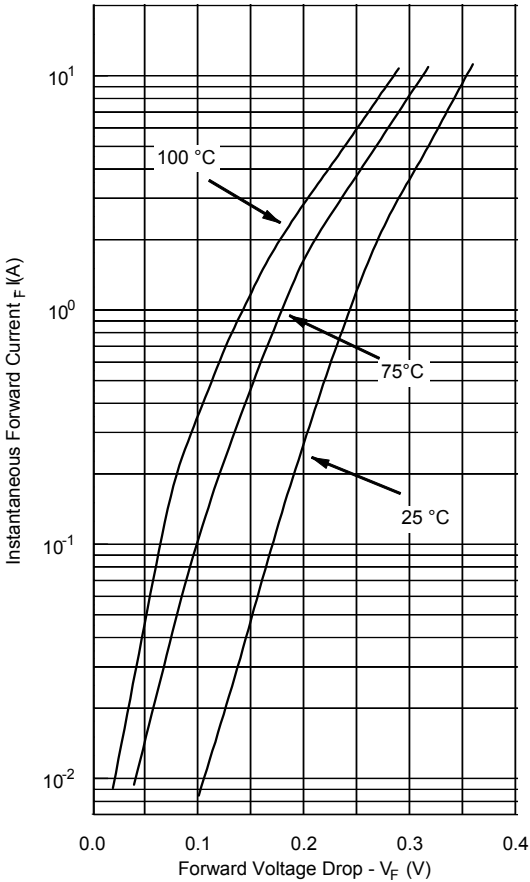
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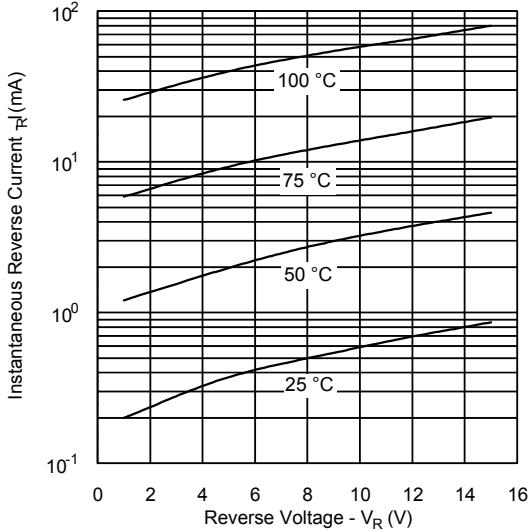
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Note: The Vf curves are for bare die only.

Typical Forward Characteristics



Typical Reverse Characteristics



Typical Junction Capacitance

