

TECHNICAL DATA  
DATA SHEET 829, REV. A

**HERMETIC POWER SCHOTTKY RECTIFIER**  
**200°C Maximum Operation Temperature**  
**Very Low Forward Voltage Drop**

**Applications:**

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

**Features:**

- Soft Reverse Recovery at Low and High Temperature
- Very Low Forward Voltage Drop
- Low Reverse Leakage Current
- Low Power Loss, High Efficiency
- High Surge Capacity
- Guard Ring for Enhanced Durability and Long Term Reliability
- Guaranteed Reverse Avalanche Characteristics

**MAXIMUM RATINGS**

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

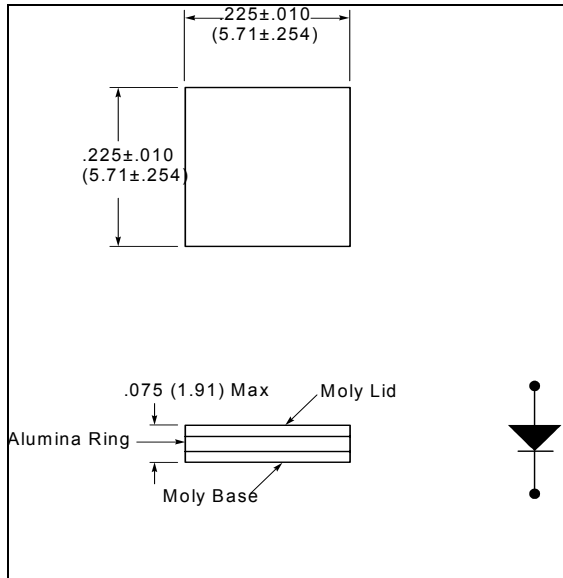
RATING	SYMBOL	MAX.	UNITS
PEAK INVERSE VOLTAGE	PIV	200	Volts
MAXIMUM DC OUTPUT CURRENT (With Cathode Maintained @ $T_C=100^\circ\text{C}$ )	$I_O$	15	Amps
MAXIMUM NONREPETITIVE FORWARD SURGE CURRENT ( $t=8.3\text{ms}$ , Sine)	$I_{FSM}$	280	Amps
MAXIMUM THERMAL RESISTANCE (Junction to Mounting Surface, Cathode)	$R_{\theta JC}$	0.85	$^\circ\text{C/W}$
MAXIMUM OPERATING TEMPERATURE RANGE	Top/Tstg	-65 to + 200	$^\circ\text{C}$
MAXIMUM STORAGE TEMPERATURE RANGE	Top/Tstg	-65 to + 175	$^\circ\text{C}$

**ELECTRICAL CHARACTERISTICS**

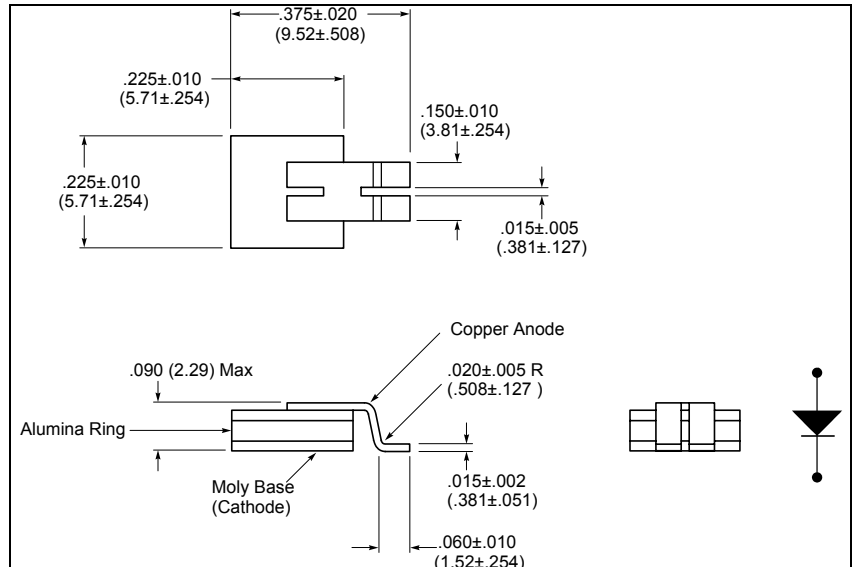
CHARACTERISTIC	SYMBOL	MAX.	UNITS
MAXIMUM FORWARD VOLTAGE DROP, Pulsed ( $I_f = 15\text{ Amps}$ ) $T_J = 25^\circ\text{C}$ $T_J = 125^\circ\text{C}$	$V_f$	0.92 0.76	Volts
MAXIMUM REVERSE CURRENT ( $I_r @ 200\text{V PIV}$ ) $T_J = 25^\circ\text{C}$ $T_J = 125^\circ\text{C}$	$I_r$	0.35 8.0	mA
MAXIMUM JUNCTION CAPACITANCE ( $V_r=5\text{V}$ )	$C_T$	300	pF

SENSITRON  
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MECHANICAL DIMENSIONS: In Inches / mm



**SHD-1**

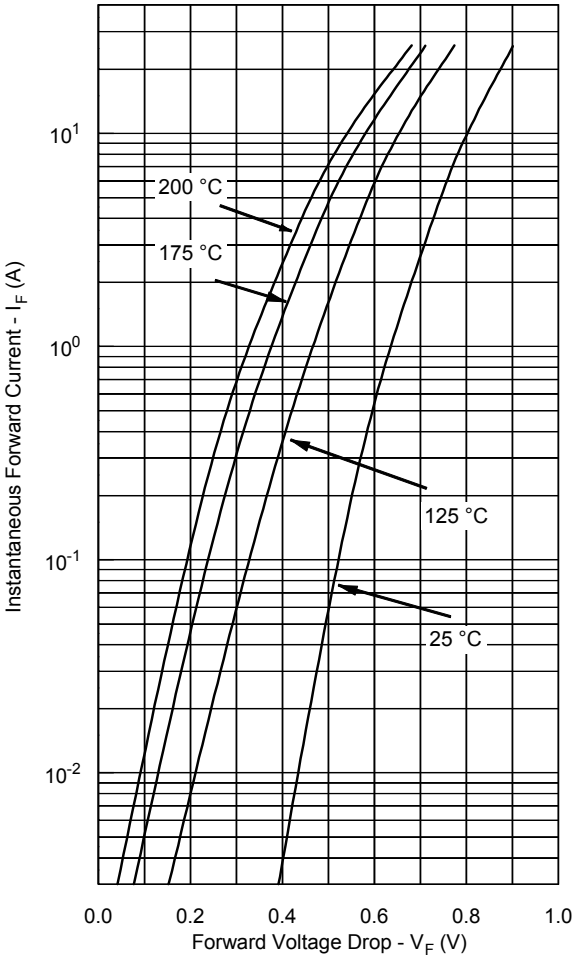


**SHD-1B**

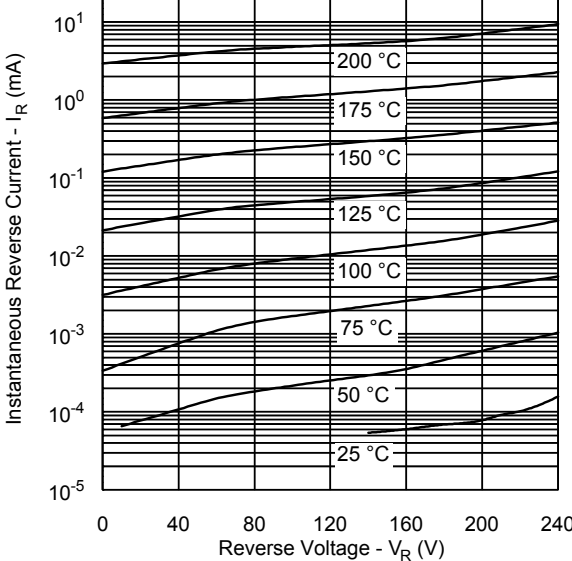
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**Typical Forward Characteristics**



**Typical Reverse Characteristics**



**Typical Junction Capacitance**

