

TECHNICAL DATA  
DATA SHEET 455, REV. A

**HERMETIC POWER SCHOTTKY RECTIFIER**  
**Ultra Low Reverse Leakage**  
**200°C Operating Temperature**

(S-100 for JANTXV equivalent screening; SS for JANS equivalent screening available)

**Applications:**

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

**Features:**

- Ultra low Reverse Leakage Current
- Soft Reverse Recovery at Low and High Temperature
- Very Low Forward Voltage Drop
- 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.

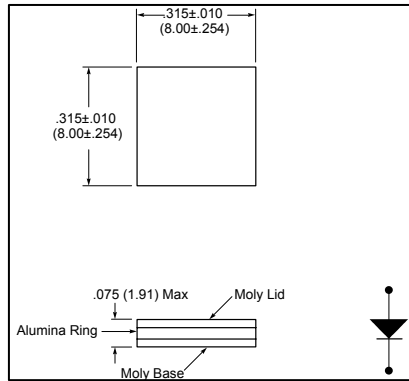
RATING	SYMBOL	MAX.	UNITS
PEAK INVERSE VOLTAGE	PIV	100	Volts
MAXIMUM DC OUTPUT CURRENT (With Cathode Maintained @ $T_C=100^\circ\text{C}$ )	$I_o$	30	Amps
MAXIMUM NONREPETITIVE FORWARD SURGE CURRENT ( $t = 8.3\text{ms}$ , Sine)	$I_{FSM}$	570	Amps
MAXIMUM JUNCTION CAPACITANCE ( $V_r=5\text{V}$ ) (per leg)	$C_T$	1000	pF
MAXIMUM THERMAL RESISTANCE (Junction to Mounting Surface, Cathode)	$R_{\theta JC}$	0.50	$^\circ\text{C/W}$
MAXIMUM OPERATING TEMPERATURE RANGE	$T_{op}$	-65 to + 200	$^\circ\text{C}$
MAXIMUM STORAGE TEMPERATURE RANGE	$T_{stg}$	-65 to + 175	$^\circ\text{C}$

**ELECTRICAL CHARACTERISTICS**

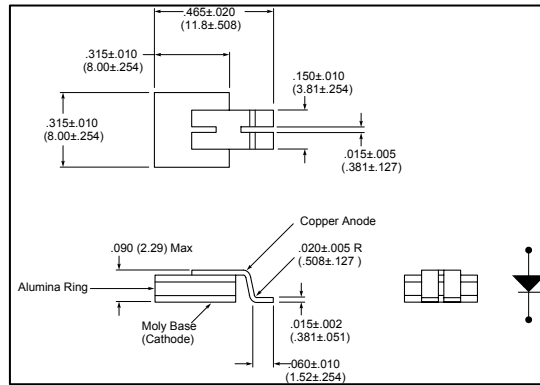
CHARACTERISTIC	SYMBOL	MAX.	UNITS
MAXIMUM FORWARD VOLTAGE DROP, Pulsed ( $I_f = 30\text{ Amps}$ ) $T_J = 25^\circ\text{C}$ $T_J = 125^\circ\text{C}$	$V_f$	0.84 0.68	Volts
MAXIMUM REVERSE CURRENT ( $I_r @ 100\text{V PIV}$ ) $T_J = 25^\circ\text{C}$ $T_J = 125^\circ\text{C}$	$I_r$	0.20 2.0	mA

**MECHANICAL DIMENSIONS: In Inches / mm**

**SHD-2**



**SHD-2B**



**PINOUT TABLE**

TYPE	PIN 1 (Base)	PIN 2
SINGLE RECTIFIER	CATHODE	ANODE

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Curves are for die only

