

TECHNICAL DATA
DATASHEET 290, REV. -

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

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

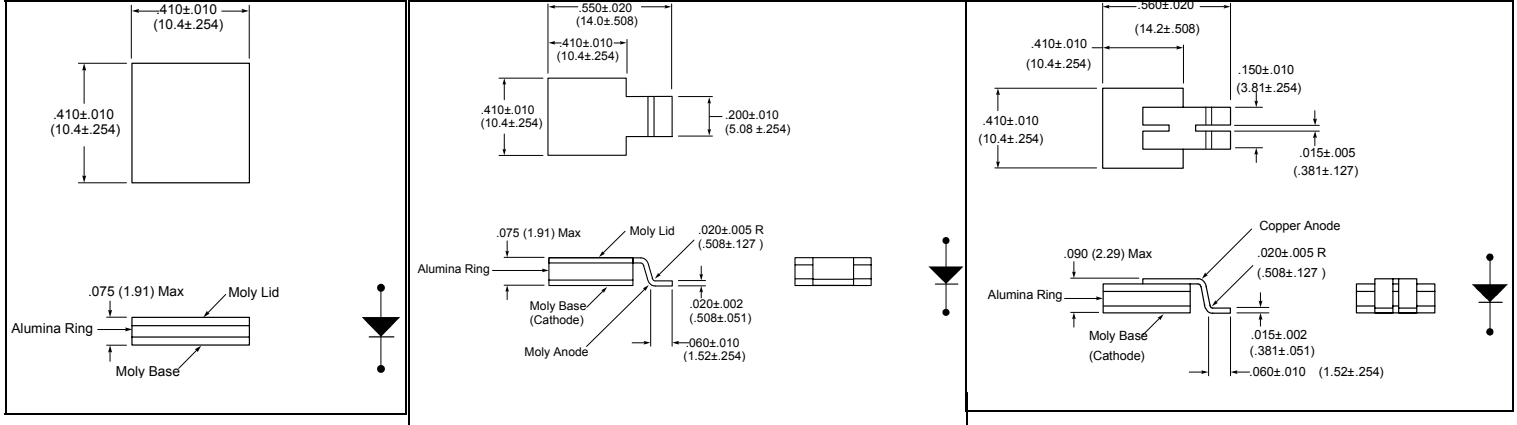
RATING	SYMBOL	MAX.	UNITS
PEAK INVERSE VOLTAGE	PIV	100	Volts
MAXIMUM DC OUTPUT CURRENT (With Cathode Maintained @ $T_C=100\text{ }^\circ\text{C}$)	I_O	120	Amps
MAXIMUM NONREPETITIVE FORWARD SURGE CURRENT ($t = 8.3\text{ms}$, Sine)	I_{FSM}	1650	Amps
MAXIMUM JUNCTION CAPACITANCE ($V_f=5\text{V}$)	C_T	3000	pF
MAXIMUM THERMAL RESISTANCE (Junction to Mounting Surface, Cathode)	$R_{\theta JC}$	0.20	$^\circ\text{C/W}$
MAXIMUM OPERATING JUNCTION TEMPERATURE RANGE	Top	-65 to +200	$^\circ\text{C}$
MAXIMUM STORAGE TEMPERATURE RANGE	Tstg	-65 to +175	$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS

CHARACTERISTIC	SYMBOL	MAX.	UNITS
MAXIMUM FORWARD VOLTAGE DROP, Pulsed ($I_f = 120\text{ Amps}$) $T_J = 25\text{ }^\circ\text{C}$ $T_J = 125\text{ }^\circ\text{C}$	V_f	0.87 0.72	Volts
MAXIMUM REVERSE CURRENT ($I_r @ 100\text{ V PIV}$) $T_J = 25\text{ }^\circ\text{C}$ $T_J = 125\text{ }^\circ\text{C}$	I_r	0.60 6.0	mA

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MECHANICAL DIMENSIONS: In Inches / mm



SHD-3

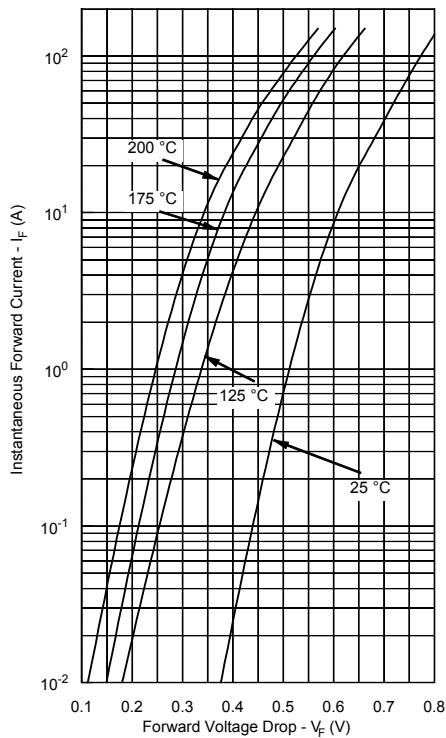
SHD-3A

SHD-3B

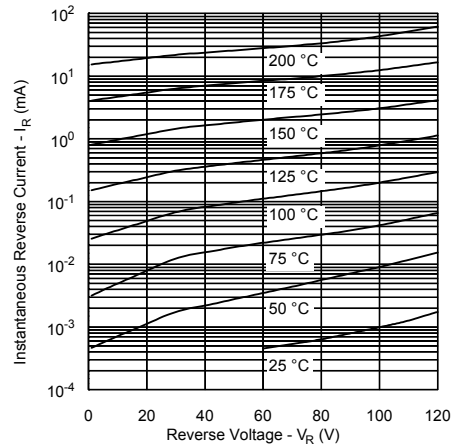
PINOUT TABLE

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

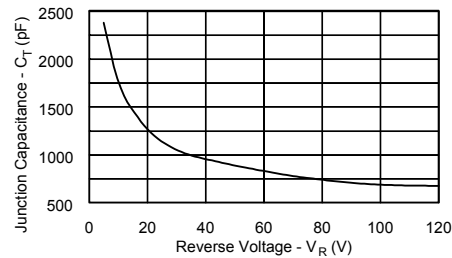
Typical Forward Characteristics



Typical Reverse Characteristics



Typical Junction Capacitance



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