

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 ($V_r=5\text{V}$) | 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 | $^\circ\text{C}$ |

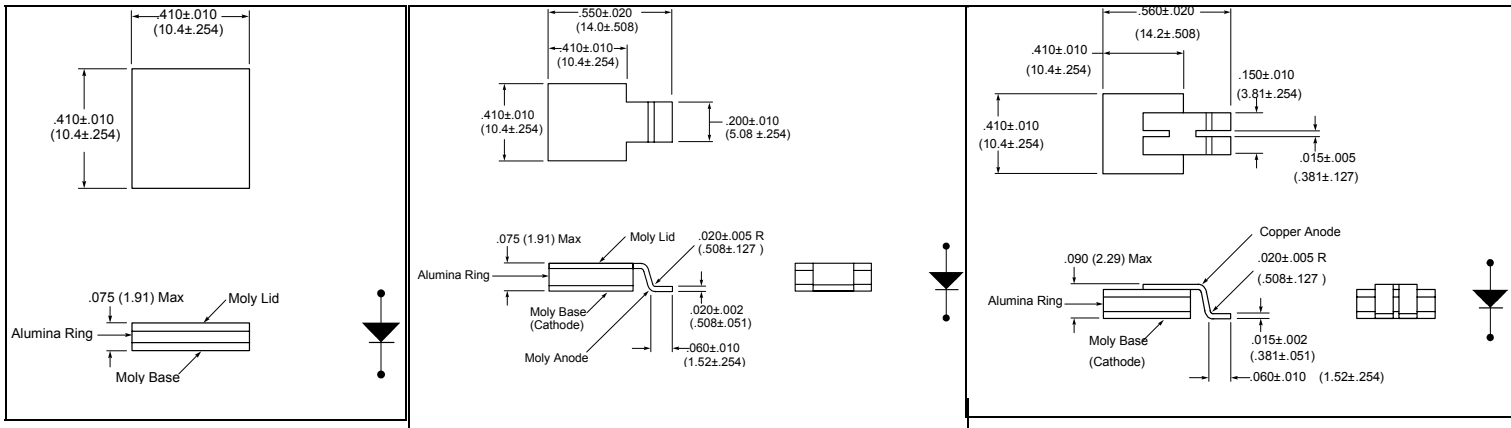
ELECTRICAL CHARACTERISTICS

| 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 |

SHD114634
SHD114634A
SHD114634B

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MECHANICAL DIMENSIONS: In Inches / mm



SHD-3

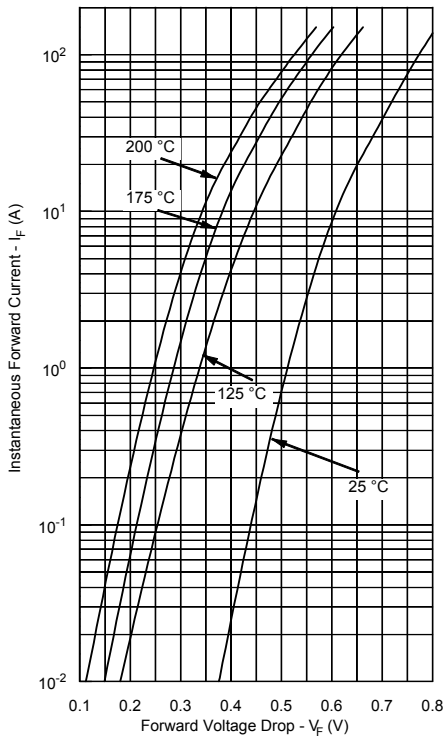
SHD-3A

SHD-3B

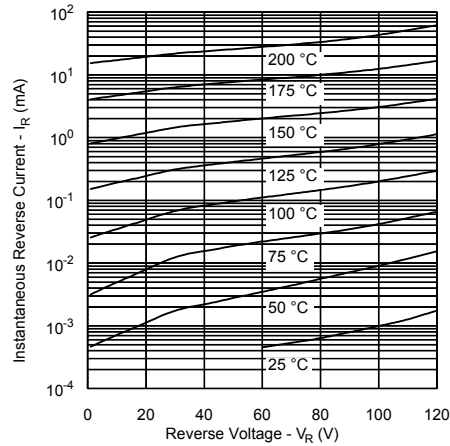
PINOUT TABLE

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

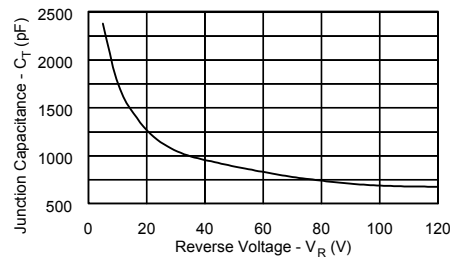
Typical Forward Characteristics



Typical Reverse Characteristics



Typical Junction Capacitance



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