

TECHNICAL DATA
DATA SHEET 913, REV. B

HERMETIC POWER SCHOTTKY RECTIFIER
Very Low Forward Voltage Drop
Ultra Low Reverse Leakage

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:

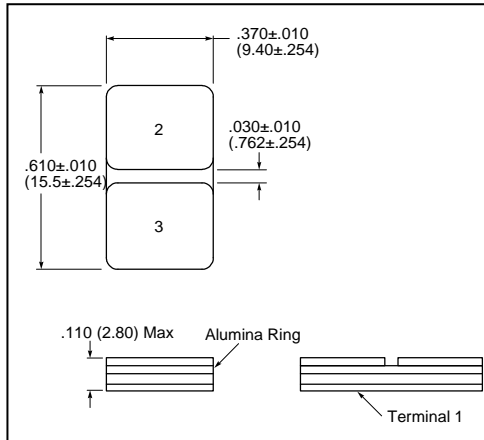
| Characteristics | Symbol | Condition | Max. | Units |
|--------------------------------------------------|-----------------|--------------------------------------------------------------------------------------------|-------------|--------------------|
| Peak Inverse Voltage | V_{RWM} | - | 200 | V |
| Max. Average Forward Current | $I_{F(AV)}$ | 50% duty cycle, rectangular wave form (per leg) | 7.5 | A |
| Max. Peak One Cycle Non-Repetitive Surge Current | I_{FSM} | 8.3 ms, half Sine wave (per leg) | 140 | A |
| Non-Repetitive Avalanche Energy | E_{AS} | $T_J = 25\text{ }^\circ\text{C}$, $I_{AS} = 0.4\text{ A}$, $L = 40\text{ mH}$ | 7.7 | mJ |
| Repetitive Avalanche Current | I_{AR} | I_{AS} decay linearly to 0 in 1 μs f limited by T_J max $V_A = 1.5V_R$ | 0.4 | A |
| Maximum Thermal Resistance | $R_{\theta JC}$ | - | 3.2 | $^\circ\text{C/W}$ |
| Max. Junction Temperature | T_J | - | -65 to +200 | $^\circ\text{C}$ |
| Max. Storage Temperature | T_{stg} | - | -65 to +200 | $^\circ\text{C}$ |

Electrical Characteristics:

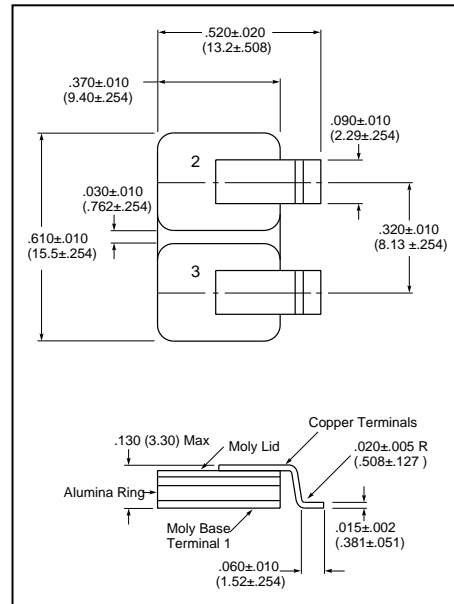
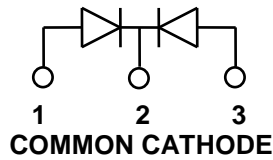
| Characteristics | Symbol | Condition | Max. | Units |
|-------------------------------------|----------|----------------------------------------------------------------------------------------------------------------------|------|-------|
| Max. Forward Voltage Drop (per leg) | V_{F1} | @ 7.5A, Pulse, $T_J = 25\text{ }^\circ\text{C}$ | 0.92 | V |
| | V_{F2} | @ 7.5A, Pulse, $T_J = 125\text{ }^\circ\text{C}$ | 0.76 | V |
| Max. Reverse Current (per leg) | I_{R1} | @ $V_R = 200\text{V}$, Pulse, $T_J = 25\text{ }^\circ\text{C}$ | 0.05 | mA |
| | I_{R2} | @ $V_R = 200\text{V}$, Pulse, $T_J = 125\text{ }^\circ\text{C}$ | 0.5 | mA |
| Max. Junction Capacitance (per leg) | C_T | @ $V_R = 5\text{V}$, $T_C = 25\text{ }^\circ\text{C}$ $f_{SIG} = 1\text{MHz}$, $V_{SIG} = 50\text{mV (p-p)}$ | 150 | pF |
| Max. Reverse Recovery Time | t_{rr} | $I_F = 0.5\text{ A}$, $I_R = 1.0\text{ A}$, $I_{RM} = 0.25\text{ A}$, $T_J = 25\text{ }^\circ\text{C}$ | 25 | nsec |

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MECHANICAL DIMENSIONS: In Inches / mm



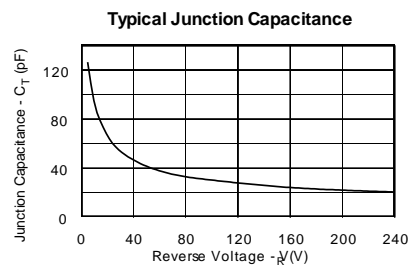
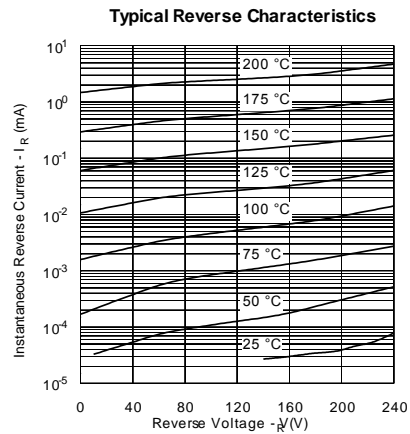
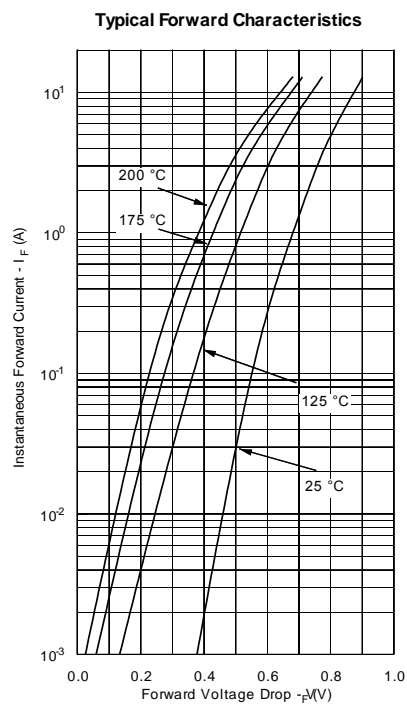
SHD-5



SHD-5B

PINOUT TABLE

| DEVICE TYPE | PIN 1 | PIN 2 | PIN 3 |
|------------------------------------|----------------|-------|-------|
| DUAL RECTIFIER, COMMON CATHODE (P) | COMMON CATHODE | ANODE | ANODE |



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