

**TECHNICAL DATA**  
**DATA SHEET 4578, REV. –**

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**HERMETIC POWER SCHOTTKY RECTIFIER**  
**Low Forward Voltage Drop**

Add Suffix "S" to Part Number for S-100 Screening.

**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
- High Surge Capacity
- Guard Ring for Enhanced Durability and Long Term Reliability

**DESCRIPTION:** A 200-VOLT, 30 AMP DUAL POWER SCHOTTKY RECTIFIER IN A HERMETIC SHD-4/4A/4B PACKAGE.

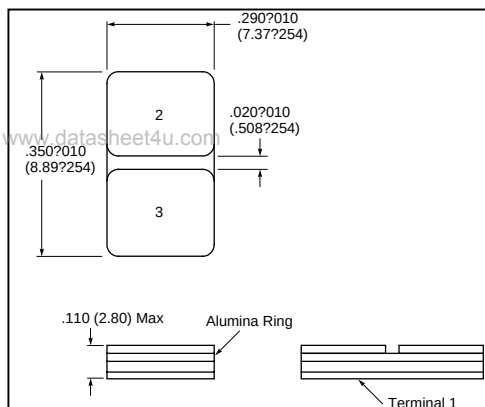
**MAXIMUM RATINGS**ALL RATINGS ARE @  $T_C = 25^\circ\text{C}$  UNLESS OTHERWISE SPECIFIED.

| RATING                                                                         | SYMBOL           | MAX.            | UNITS              |
|--------------------------------------------------------------------------------|------------------|-----------------|--------------------|
| PEAK INVERSE VOLTAGE                                                           | PIV              | 200             | Volts              |
| MAXIMUM DC OUTPUT CURRENT (With Cathode Maintained @ $T_C=100^\circ\text{C}$ ) | $I_O$            | 30              | Amps               |
| MAXIMUM NONREPETITIVE FORWARD SURGE CURRENT<br>( $t=8.3\text{ms}$ , Sine)      | $I_{FSM}$        | 280             | Amps               |
| MAXIMUM THERMAL RESISTANCE (Junction to Mounting Surface, Cathode)             | $R_{\theta JC}$  | 0.40            | $^\circ\text{C/W}$ |
| MAXIMUM OPERATING TEMPERATURE RANGE                                            | $T_{op}/T_{stg}$ | -65 to<br>+ 200 | $^\circ\text{C}$   |
| MAXIMUM STORAGE TEMPERATURE RANGE                                              | $T_{op}/T_{stg}$ | -65 to<br>+ 200 | $^\circ\text{C}$   |

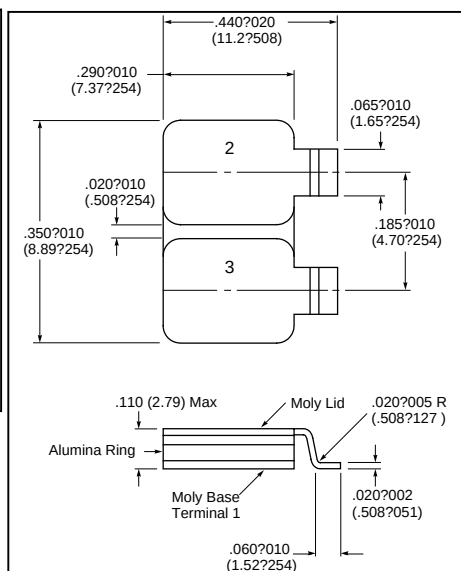
**ELECTRICAL CHARACTERISTICS**

| CHARACTERISTIC                                                                                                   | SYMBOL | MAX.         | UNITS |
|------------------------------------------------------------------------------------------------------------------|--------|--------------|-------|
| MAXIMUM FORWARD VOLTAGE DROP, Pulsed ( $I_f = 15$ Amps)<br>$T_J = 25^\circ\text{C}$<br>$T_J = 125^\circ\text{C}$ | $V_f$  | 0.92<br>0.76 | Volts |
| MAXIMUM REVERSE CURRENT ( $I_r$ @ 200V PIV)<br>$T_J = 25^\circ\text{C}$<br>$T_J = 125^\circ\text{C}$             | $I_r$  | 0.015<br>1.0 | mA    |
| MAXIMUM JUNCTION CAPACITANCE ( $V_r=5\text{V}$ )                                                                 | $C_T$  | 300          | pF    |

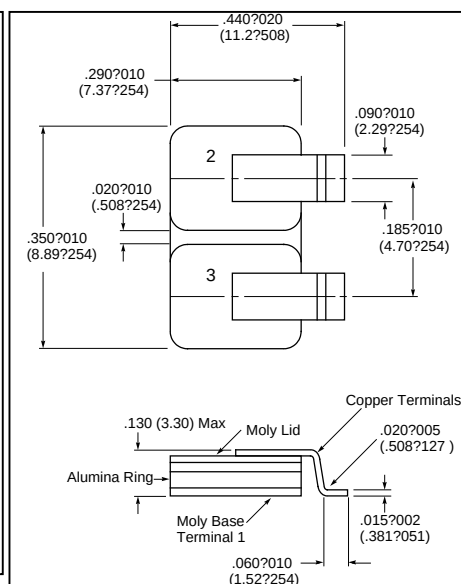
**Mechanical Dimensions: In Inches / mm**



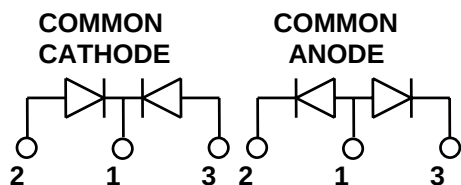
**SHD-4**



**SHD-4A**



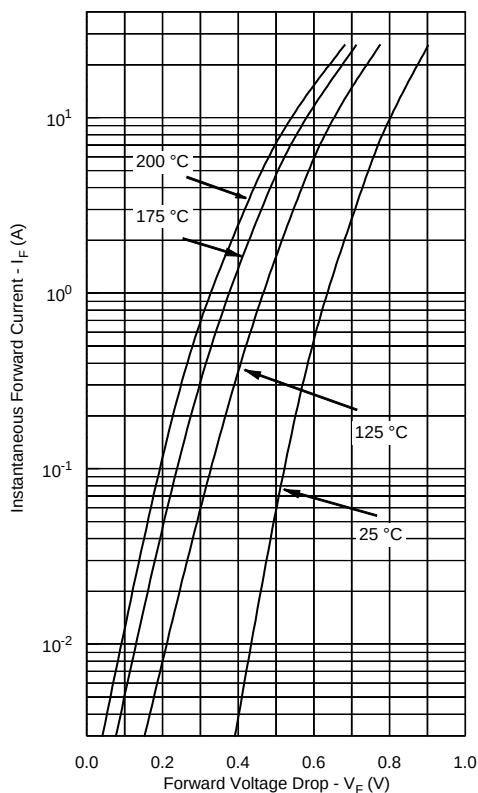
**SHD-4B**



**PINOUT TABLE**

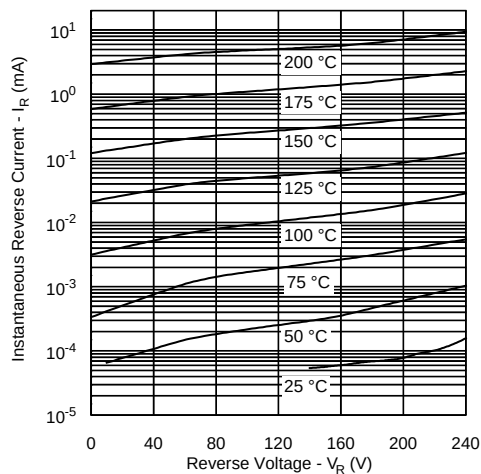
| DEVICE TYPE                        | PIN 1          | PIN 2     | PIN 3     |
|------------------------------------|----------------|-----------|-----------|
| DUAL RECTIFIER, COMMON CATHODE (P) | COMMON CATHODE | ANODE 1   | ANODE 2   |
| DUAL RECTIFIER, COMMON ANODE (N)   | COMMON ANODE   | CATHODE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

**Typical Forward Characteristics**

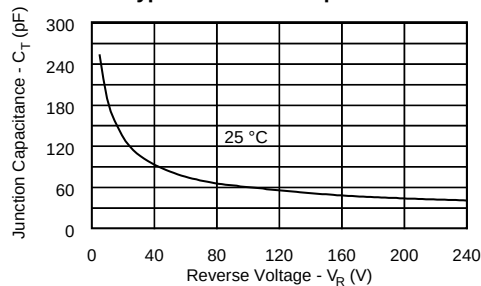


$V_F @ 1A -55^{\circ}C \text{ typical} = 0.56V$

**Typical Reverse Characteristics**



**Typical Junction Capacitance**



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