

TECHNICAL DATA  
DATA SHEET 630, REV. C

## HERMETIC POWER SCHOTTKY RECTIFIER Very Low Voltage Drop

**DESCRIPTION:** 45 VOLT, 3.0 AMP, POWER SCHOTTKY RECTIFIER IN A SHD-1/1B PACKAGE.

### MAXIMUM RATINGS

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

| RATING / CONDITION   | SYMBOL           | MAX.        | UNITS              |
|--|------------------|-------------|--------------------|
| PEAK INVERSE VOLTAGE   | PIV              | 45          | Volts              |
| MAXIMUM DC OUTPUT CURRENT (With Cathode Maintained @ $T_C=100^\circ\text{C}$ ) | $I_O$            | 3.0         | Amps               |
| MAXIMUM NONREPETITIVE FORWARD SURGE CURRENT<br>( $t=8.3\text{ms}$ , Sine)      | $I_{FSM}$        | 55          | Amps               |
| MAXIMUM JUNCTION CAPACITANCE ( $V_r=5\text{V}$ )                               | $C_T$            | 160         | pF                 |
| MAXIMUM THERMAL RESISTANCE (Junction to Mounting Surface, Cathode)             | $R_{\theta JC}$  | 7.07        | $^\circ\text{C/W}$ |
| MAXIMUM OPERATING AND STORAGE TEMPERATURE RANGE                                | $T_{op}/T_{stg}$ | -65 to +150 | $^\circ\text{C}$   |

### ELECTRICAL CHARACTERISTICS

| CHARACTERISTIC  |       |              |       |
|---|-------|--------------|-------|
| MAXIMUM FORWARD VOLTAGE DROP, Pulsed ( $I_f = 3.0$ Amps)<br>$T_J = 25^\circ\text{C}$<br>$T_J = 125^\circ\text{C}$ | $V_f$ | 0.56<br>0.51 | Volts |
| MAXIMUM REVERSE CURRENT ( $I_r$ @ 45V PIV)<br>$T_J = 25^\circ\text{C}$<br>$T_J = 125^\circ\text{C}$               | $I_r$ | 0.3<br>14    | mA    |

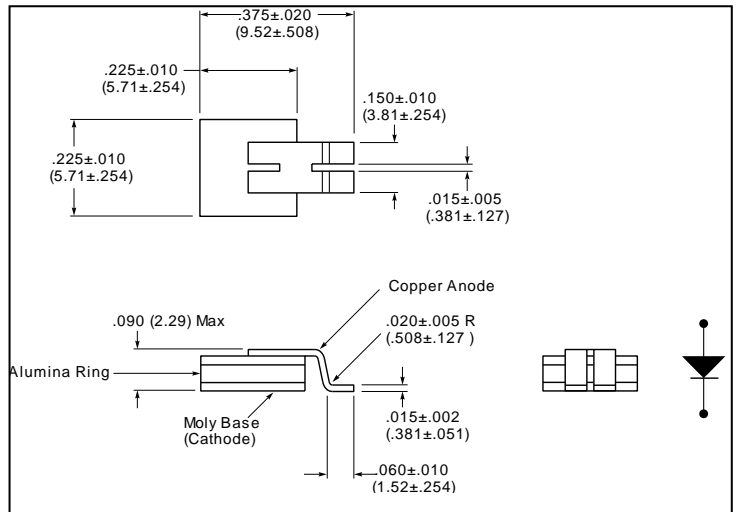
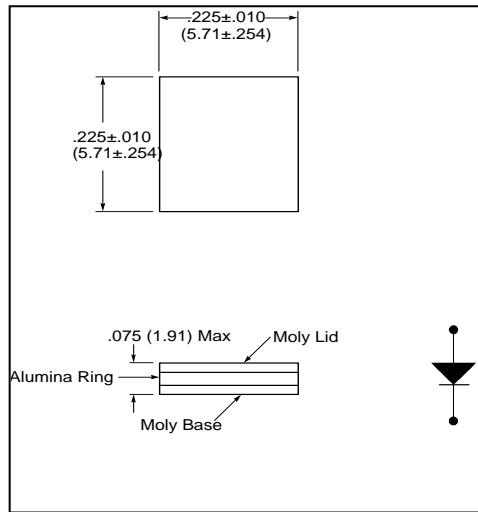
SENSITRON

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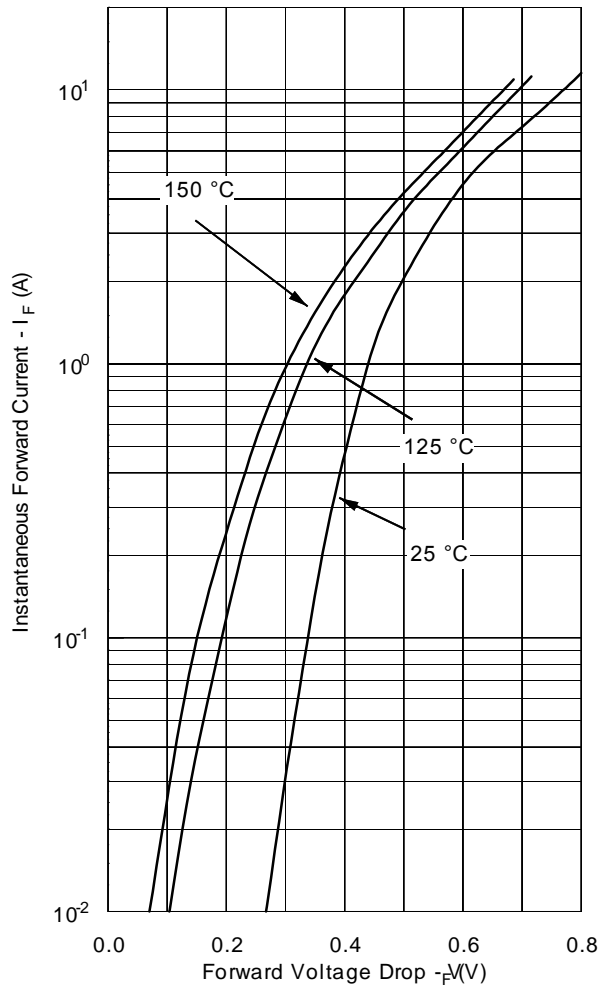
MECHANICAL DIMENSIONS: In Inches / mm

SHD-1B

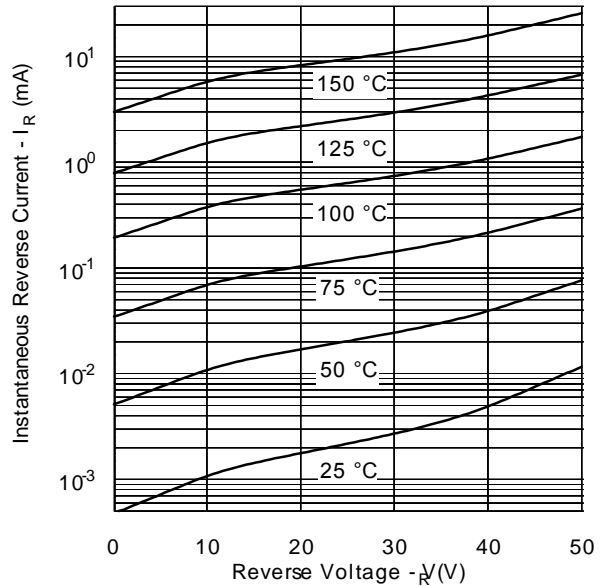
SHD-1



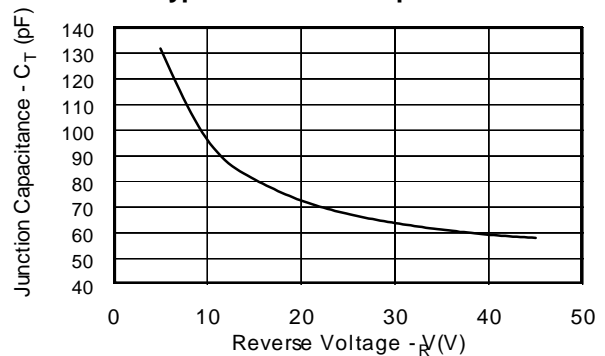
Typical Forward Characteristics



Typical Reverse Characteristics



Typical Junction Capacitance



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