

TECHNICAL DATA  
DATA SHEET 181, REV. B  
Formerly SHD3166/B

## HERMETIC POWER ULTRAFAST RECTIFIER

**DESCRIPTION:** A 200 VOLT, 25 AMP, HERMETIC POWER ULTRAFAST RECTIFIER IN A SHD-1/1B PACKAGE.

### MAXIMUM RATINGS

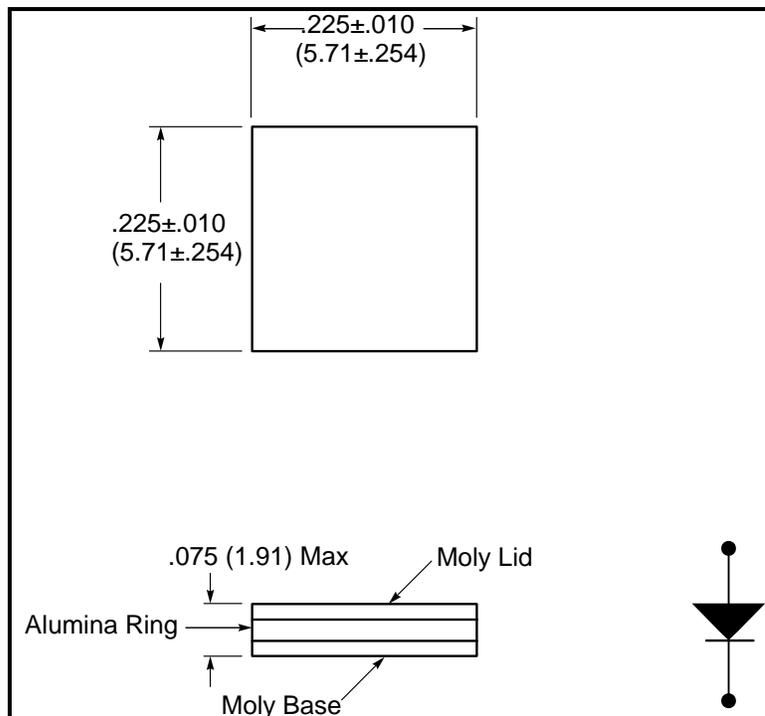
All ratings are @  $T_A = 25^\circ\text{C}$  unless otherwise specified

| RATING  | SYMBOL         | MAX.         | UNITS              |
|---|----------------|--------------|--------------------|
| PEAK INVERSE VOLTAGE  | PIV            | 200          | Volts              |
| MAXIMUM DC OUTPUT CURRENT (With Cathode Maintained @ $T_C=100^\circ\text{C}$ )                        | $I_O$          | 25           | Amps               |
| MAXIMUM REVERSE RECOVERY TIME ( $I_f = 0.5\text{A}$ , $I_r = 1.0\text{A}$ , $I_{rr} = 0.25\text{A}$ ) | $t_{rr}$       | 35           | nsec               |
| MAXIMUM THERMAL RESISTANCE (Junction to Mounting Surface, Cathode)                                    | $R\theta_{JC}$ | 0.6          | $^\circ\text{C/W}$ |
| MAXIMUM OPERATING AND STORAGE TEMPERATURE RANGE   | Top/Tstg       | -55 to + 150 | $^\circ\text{C}$   |

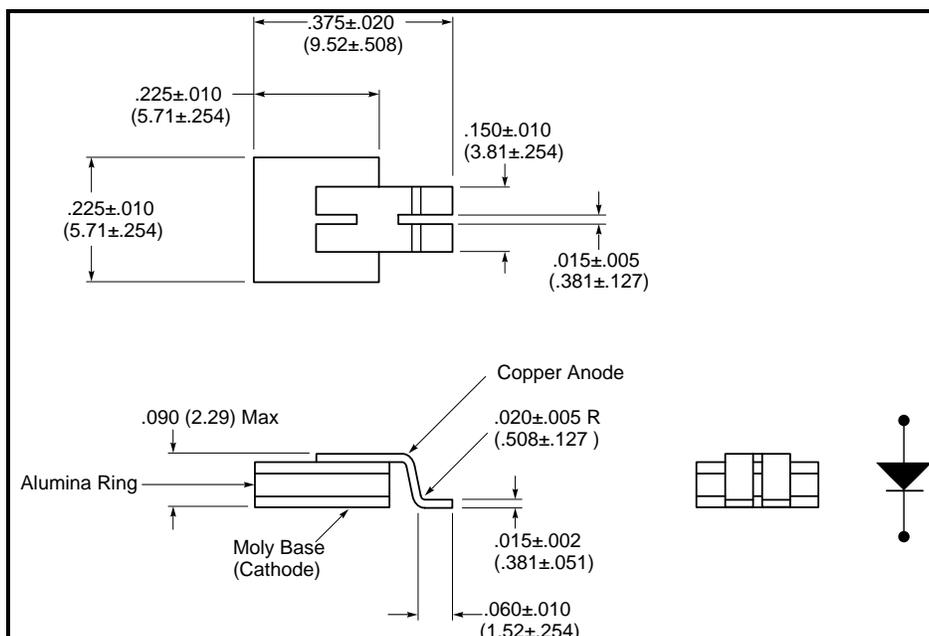
### ELECTRICAL CHARACTERISTICS

| CHARACTERISTIC   |       |      |               |
|--|-------|------|---------------|
| MAXIMUM FORWARD VOLTAGE DROP, Pulsed $T_C = 25^\circ\text{C}$ ( $I_f = 25\text{Amps}$ )  | $V_f$ | 1.06 | Volts         |
| MAXIMUM FORWARD VOLTAGE DROP, Pulsed $T_C = 125^\circ\text{C}$ ( $I_f = 25\text{Amps}$ ) | $V_f$ | 0.98 | Volts         |
| MAXIMUM REVERSE CURRENT $T_C = 25^\circ\text{C}$ $I_r$ @ 200 PIV                         | $I_r$ | 25   | $\mu\text{A}$ |
| MAXIMUM REVERSE CURRENT $T_C = 125^\circ\text{C}$ $I_r$ @ 200 PIV                        | $I_r$ | 1.0  | mA            |
| CAPACITANCE $c = 25^\circ\text{C}$ $V_f = 10\text{V}$ , $f = 1\text{MHz}$                | $C_T$ | 160  | pF            |

MECHANICAL DIMENSIONS: In Inches / mm



**SHD-1**



**SHD-1B**

**SENSITRON**  
**DATA SHEET 181, REV. B**

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