

TECHNICAL DATA  
DATA SHEET 127, REV F

**HIGH EFFICIENCY AXIAL LEAD RECTIFIERS**

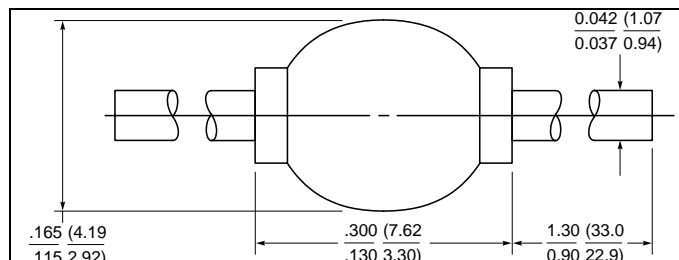
DESCRIPTION: 50 / 100 / 150 VOLT, 3.0 AMP, 30 NANOSECOND RECTIFIER

MAX. RATINGS / ELECTRICAL CHARACTERISTICS All ratings are at  $T_A = 25^\circ\text{C}$  unless otherwise specified.

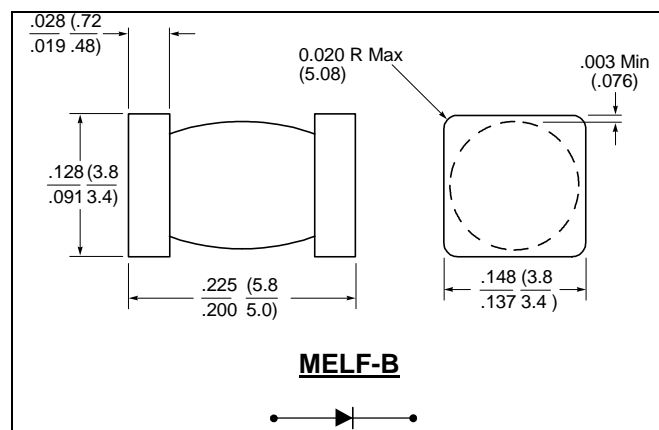
| RATING  | CONDITIONS   | MIN | TYP | MAX              | UNIT               |
|---|--|-----|-----|------------------|--------------------|
| Peak Inverse Voltage (PIV)<br>1N5807 / US<br>1N5809 / US<br>1N5811 / US | -  | -   | -   | 50<br>100<br>150 | Vdc                |
| Average DC Output Current ( $I_o$ )                                     | $T = +55^\circ\text{C}$  | -   | -   | 3.0              | Amps               |
| Peak Single Cycle Surge Current ( $I_{fsm}$ )                           | $t_p = 8.3$ ms Single Half Cycle Sine Wave, Superimposed On Rated Load                         | -   | -   | 125              | Amps(pk)           |
| Operating and Storage Temp. ( $T_{op}$ & $T_{stg}$ )                    | -  | -65 | -   | +175             | $^\circ\text{C}$   |
| Maximum Forward Voltage ( $V_f$ )                                       | $I_f = 4.0\text{A}$<br>$I_f = 6.0\text{A}$<br><br>(300 $\mu\text{sec}$ pulse, duty cycle < 2%) | -   | -   | .875<br>.925     | Volts              |
| Maximum Instantaneous Reverse Current At Rated (PIV)                    | $T_A = 25^\circ\text{C}$<br>$T_A = 100^\circ\text{C}$  | -   | -   | 5.0<br>150       | $\mu\text{Amps}$   |
| Reverse Recovery Time ( $t_{rr}$ )                                      | $I_f = 0.5\text{A}$ , $I_r = 1.0\text{A}$ , $I_{rr} = 0.25\text{A}$                            | -   | -   | 30               | nsec               |
| Thermal Resistance ( $\theta_{JL}$ ) (Axial)                            | $d = 0.375''$  | -   | -   | 22               | $^\circ\text{C/W}$ |
| Thermal Resistance ( $\theta_{JEC}$ ) (MELF)                            | Junction to End Caps   | -   | -   | 8.0              | $^\circ\text{C/W}$ |

**SENSITRON**  
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**MECHANICAL DIMENSIONS In Inches / (mm), min./max.**



**PKG. 304**



**MELF-B**

**Note:** The cathode side is marked with a dark colored band on one side of the diode body.

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