

TECHNICAL DATA  
DATA SHEET 175, REV. B**HERMETIC AXIAL LEAD/MELF RECTIFIER****DESCRIPTION: A 600 VOLT, 1.0 AMP, 250 NANOSECOND AXIAL LEAD MELF RECTIFIER****MAXIMUM RATINGS**All ratings are at  $T_A = 25^\circ\text{C}$  unless otherwise specified.

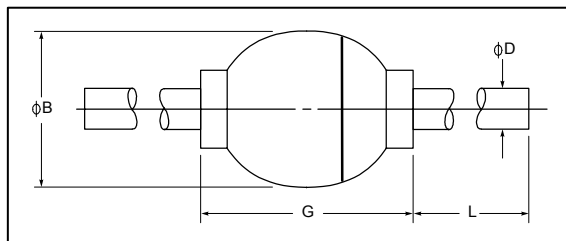
| RATING                                               | CONDITIONS                                                             | MIN. | TYP. | MAX. | UNIT               |
|------------------------------------------------------|------------------------------------------------------------------------|------|------|------|--------------------|
| Peak Inverse Voltage (PIV)                           | -                                                                      | -    | -    | 600  | Vdc                |
| Average DC Output Current ( $I_o$ )                  | $T_A = +75^\circ\text{C}$                                              | -    | -    | 1.0  | Amps               |
| Average DC Output Current ( $I_o$ )                  | $T_A = +100^\circ\text{C}$                                             | -    | -    | .75  | Amps               |
| Peak Single Cycle Surge Current ( $I_{ism}$ )        | $t_p = 8.3$ ms Single Half Cycle Sine Wave, Superimposed On Rated Load | -    | -    | 25   | Amps(pk)           |
| Operating and Storage Temp. ( $T_{op}$ & $T_{stg}$ ) | -                                                                      | -65  | -    | +175 | $^\circ\text{C}$   |
| Thermal Resistance ( $\theta_{JL}$ )                 | $d = 0.375"$                                                           | -    | -    | 38   | $^\circ\text{C/W}$ |
| Thermal Resistance ( $\theta_{JEC}$ )                | Junction to end caps                                                   | -    | -    | 7.0  | $^\circ\text{C/W}$ |

**ELECTRICAL CHARACTERISTICS**

| CHARACTERISTIC                                               | CONDITIONS                                                            | MIN. | TYP. | MAX.      | UNIT             |
|--------------------------------------------------------------|-----------------------------------------------------------------------|------|------|-----------|------------------|
| Maximum Forward Voltage ( $V_f$ )                            | $I_f = 3.0\text{A}$ (300 $\mu\text{sec}$ pulse, duty cycle < 2%)      | -    | -    | 1.6       | Volts            |
| Maximum Instantaneous Reverse Current At Rated PIV ( $I_R$ ) | $T_A = 25^\circ\text{C}$<br>$T_A = 100^\circ\text{C}$                 | -    | -    | 0.5<br>25 | $\mu\text{Amps}$ |
| Reverse Recovery Time ( $t_{rr}$ )                           | $I_f = 0.5\text{A}$ , $I_r = 0.5\text{A}$ ,<br>$I_{rr} = 50\text{mA}$ | -    | -    | 250       | nsec             |

**SENSITRON**  
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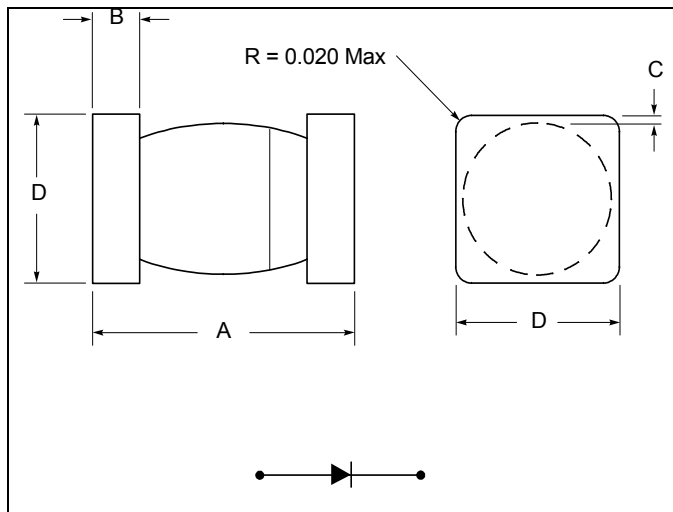
**AXIAL LEAD RECTIFIER OUTLINES**



**Note:** Cathode side of device is indicated by a dark band marked on body.

| PACKAGE STYLE | DIMENSIONS - INCHES / MILLIMETERS |                      |                        |                        |
|---------------|-----------------------------------|----------------------|------------------------|------------------------|
|               | $\phi B$                          | $\phi D$             | G                      | L                      |
| 102           | .065/.110<br>1.65/2.79            | .026/.033<br>.66/.84 | .130/.225<br>3.30/5.72 | 1.00/1.30<br>25.4/33.0 |

**MELF PACKAGE OUTLINES**



**Note:** Cathode side of device is indicated by a dark band marked on body.

| PACKAGE STYLE | DIMENSIONS - INCHES / MILLIMETERS |                       |                      |                      |
|---------------|-----------------------------------|-----------------------|----------------------|----------------------|
|               | A                                 | B                     | C                    | D                    |
| MELF-1        | .168/.230<br>4.2/5.9              | 0.019/.028<br>.48/.72 | .003 Min<br>.076 Min | .091/.128<br>3.4/3.8 |

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