

TECHNICAL DATA
DATA SHEET 127, REV.H.2

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| SJ |
| SX |
| SV |

HERMETIC AXIAL / MELF HIGH EFFICIENCY RECTIFIER

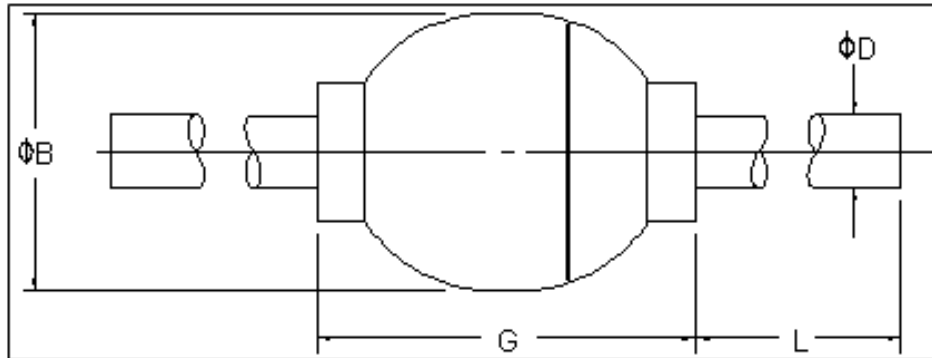
- Hermetic, non-cavity glass package
- Metallurgically bonded
- Physical dimensions: Axial lead similar to E package and surface mount similar to D-5B
- Operating and Storage Temperature: -65°C to +175°

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

| Rating | Symbol | Condition | Max | Units |
|--|-------------------|--|------------------|--------------------|
| WORKING PEAK REVERSE VOLTAGE 1N5807 / US 1N5809 / US 1N5811 / US | V_{WM} | | 50 100 150 | Volts |
| AVERAGE RECTIFIED FORWARD CURRENT | I_o | $T_L = 75^\circ\text{C}$ | 6.0 | Amps |
| AVERAGE RECTIFIED FORWARD CURRENT | I_o | $T_A = 55^\circ\text{C}$ | 3.0 | Amps |
| PEAK FORWARD SURGE CURRENT | I_{FSM} | $T_p = 8.3\text{ms}$ | 125 | A(pk) |
| MAXIMUM REVERSE CURRENT | $I_R @ V_{RWM}$ | $T_j = 25^\circ\text{C}$ | 5.0 | μAmps |
| MAXIMUM REVERSE CURRENT | $I_R @ V_{RWM}$ | $T_j = 125^\circ\text{C}$ | 525 | μAmps |
| MAX. PEAK FORWARD VOLTAGE (PULSED) 300 μsec pulse, duty cycle < 2% | V_{FM} | $I_{FM} = 4.0\text{A}$ $I_{FM} = 6.0\text{A}$ | 0.875 0.925 | Volts |
| MAXIMUM REVERSE RECOVERY TIME | T_{rr} | $I_F = I_{RM} = 0.5\text{A}$ $I_{REC} = 0.05\text{A}$ | 30 | ns |
| FORWARD RECOVERY VOLTAGE | V_{FRM} | $I_F = 500\text{mA}$ $t_r = 8\text{ns}$ | 2.2 | Volts |
| THERMAL RESISTANCE (Axial) 1N5807 thru 1N5811 | $R_{\theta_{JL}}$ | $L = .375$ | 22 | $^\circ\text{C/W}$ |
| THERMAL RESISTANCE (MELF) 1N5807US thru 1N5811US | $R_{\theta_{JC}}$ | $L = 0$ | 6.5 | $^\circ\text{C/W}$ |

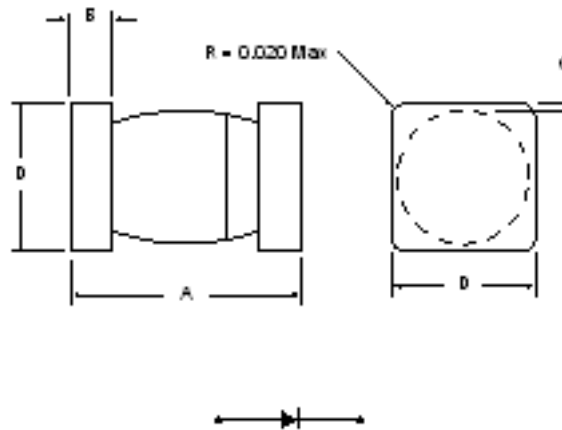
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MECHANICAL DIMENSIONS In Inches / (mm)



| PACKAGE STYLE | DIMENSIONS - INCHES (MILLIMETERS) | | | |
|---------------|-----------------------------------|-----------------------|------------------------|-----------------------|
| | ϕB | ϕD | G | L |
| 304 | .115/.142 2.92/3.61 | .036/.042 .94/1.07 | .130/.300 3.30/7.62 | .90/1.30 22.9/33.0 |

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-B | .200/.225 5.0/5.8 | 0.019/.028 .48/.72 | .003 Min .076 Min | .137/.148 3.4/3.8 |

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