

TECHNICAL DATA  
DATA SHEET 5108, REV -**HIGH CURRENT AXIAL LEAD RECTIFIERS**  
DESCRIPTION: 200-1000 VOLT, 3.0 AMP, 2000 NANOSECOND RECTIFIER

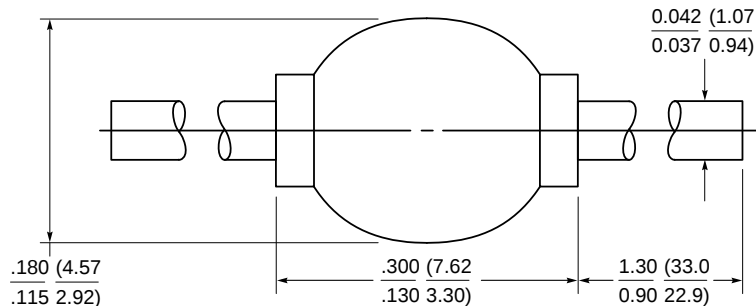
-Suffix "US" denotes melf/surface mount packaging

**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><b>1N5550</b><br><b>1N5551</b><br><b>1N5552</b><br><b>1N5553</b><br><b>1N5554</b>        | -                                                                      | -   | -   | 200<br>400<br>600<br>800<br>1000 | Vdc                |
| Average DC Output Current ( $I_o$ )                                                                                    | $T_A = +55^\circ\text{C}$                                              | -   | -   | 3.0                              | Amps               |
| Peak Single Cycle Surge Current ( $I_{fsm}$ )                                                                          | $t_p = 8.3$ ms Single Half Cycle Sine Wave, Superimposed On Rated Load | -   | -   | 100                              | Amps(pk)           |
| Operating and Storage Temp. ( $T_{op}$ & $T_{stg}$ )                                                                   | -                                                                      | -65 | -   | +175                             | $^\circ\text{C}$   |
| Maximum Forward Voltage ( $V_f$ )<br><b>1N5550</b><br><b>1N5551</b><br><b>1N5552</b><br><b>1N5553</b><br><b>1N5554</b> | $I_f = 9.0\text{A}$ (300 $\mu\text{sec}$ pulse, duty cycle < 2%)       | -   | -   | 1.2<br>1.2<br>1.2<br>1.3<br>1.3  | Volts              |
| Maximum Instantaneous Reverse Current At Rated (PIV)                                                                   | $T_A = 25^\circ\text{C}$<br>$T_A = 100^\circ\text{C}$                  | -   | -   | 1.0<br>60                        | $\mu\text{Amps}$   |
| Reverse Recovery Time ( $t_{rr}$ )                                                                                     | $I_f = 0.5\text{A}$ , $I_r = 1.0\text{A}$ , $I_{rr} = 0.25\text{A}$    | -   | -   | 2000                             | nsec               |
| Thermal Resistance ( $\theta_{JL}$ )                                                                                   | Junction to Lead<br>$d = 0.375''$                                      |     |     | 22                               | $^\circ\text{C/W}$ |
| Thermal Resistance ( $\theta_{JEC}$ )                                                                                  | Junction to Endcap                                                     | -   | -   | 6.5                              | $^\circ\text{C/W}$ |

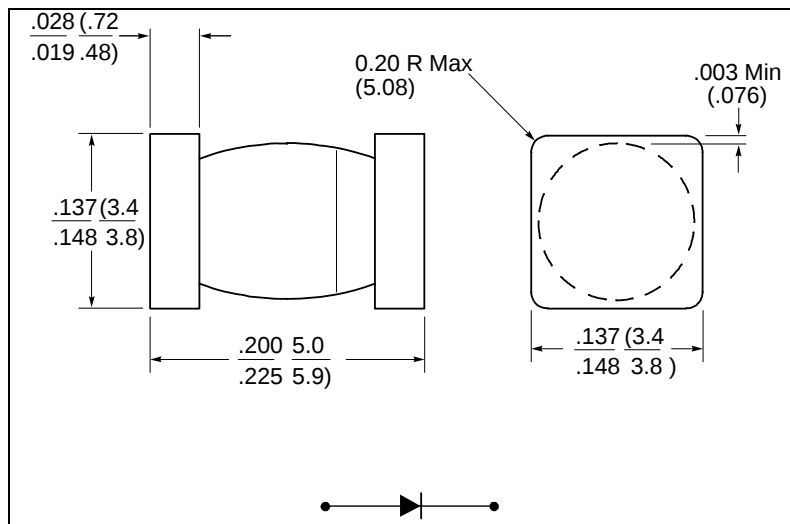
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MECHANICAL DIMENSIONS In Inches / (mm), min./max.



**PKG. 301**

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



**MELF-B**

**Note:** The cathode side is marked on body with a dark band.

# **SENSITRON** **SEMICONDUCTOR**

SS5550/US  
SS5551/US  
SS5552/US  
SS5553/US  
SS5554/US

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## **TECHNICAL DATA** **DATA SHEET 126, REV G**

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