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## RS801 THRU RS807

### Features

- Low Leakage
- Low Forward Voltage
- Any Mounting Position
- Silver Plated Copper Leads
- Surge Overload Rating Of 300 Amps

### Maximum Ratings

- Operating Junction Temperature: -55°C to +150°C
- Storage Temperature: -55°C to +150°C

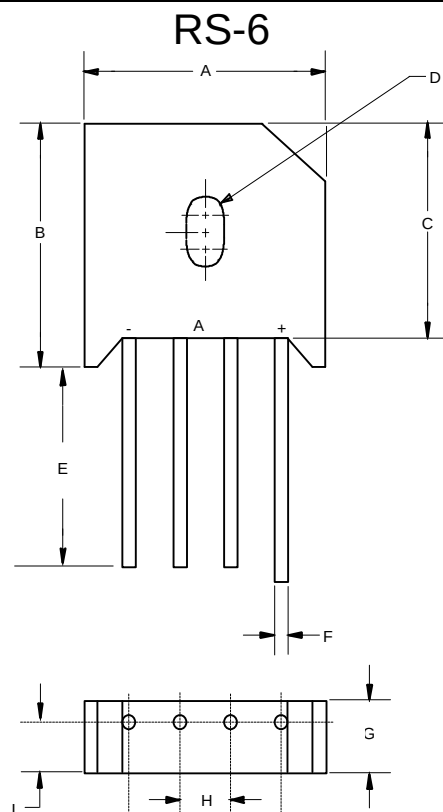
| Microsemi Catalog Number | Device Marking | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|--------------------------|----------------|----------------------------------------|---------------------|-----------------------------|
| RS801                    | RS801          | 50V                                    | 35V                 | 50V                         |
| RS802                    | RS802          | 100V                                   | 70V                 | 100V                        |
| RS803                    | RS803          | 200V                                   | 140V                | 200V                        |
| RS804                    | RS804          | 400V                                   | 280V                | 400V                        |
| RS805                    | RS805          | 600V                                   | 420V                | 600V                        |
| RS806                    | RS806          | 800V                                   | 560V                | 800V                        |
| RS807                    | RS807          | 1000V                                  | 700V                | 1000v                       |

### Electrical Characteristics @ 25°C Unless Otherwise Specified

|                                                         |             |                         |                                                       |
|---------------------------------------------------------|-------------|-------------------------|-------------------------------------------------------|
| Average Forward Current                                 | $I_{F(AV)}$ | 8.0A                    | $T_A = 65^\circ\text{C}$                              |
| Peak Forward Surge Current                              | $I_{FSM}$   | 300A                    | 8.3ms, half sine                                      |
| Maximum Forward Voltage Drop Per Element                | $V_F$       | 1.1V                    | $I_{FM} = 4.0\text{A};$<br>$T_J = 25^\circ\text{C}$   |
| Maximum DC Reverse Current At Rated DC Blocking Voltage | $I_R$       | 10 $\mu\text{A}$<br>1mA | $T_J = 25^\circ\text{C}$<br>$T_J = 100^\circ\text{C}$ |

\*Pulse test: Pulse width 300  $\mu\text{sec}$ , Duty cycle 1%

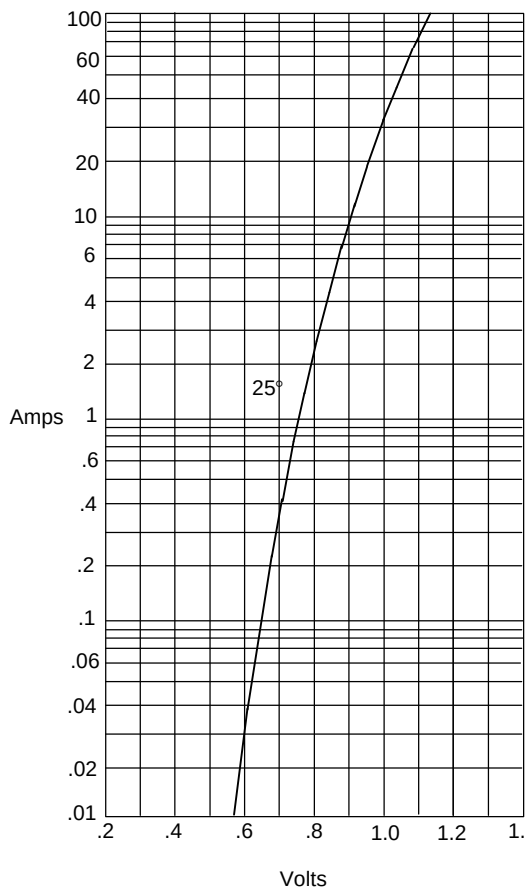
## 8 Amp Single Phase Bridge Rectifier 50 to 1000 Volts



| DIMENSIONS |                          |      |                           |       |      |
|------------|--------------------------|------|---------------------------|-------|------|
| DIM        | INCHES                   |      | MM                        |       | NOTE |
|            | MIN                      | MAX  | MIN                       | MAX   |      |
| A          | .895                     | .935 | 22.70                     | 23.70 |      |
| B          | ---                      | .760 | ---                       | 19.30 |      |
| C          | .660                     | .700 | 16.80                     | 17.80 |      |
| D          | .15 $\varnothing$ x .23L |      | 3.8 $\varnothing$ x 5.57L |       | HOLE |
| E          | 1.00                     | ---  | 25.40                     | ---   |      |
| F          | .048                     | .052 | 1.20                      | 1.30  | TYP  |
| G          | .260                     | .280 | 6.60                      | 7.10  |      |
| H          | .180                     | .220 | 4.60                      | 5.60  |      |
| I          | .185                     | .205 | 4.70                      | 5.20  |      |

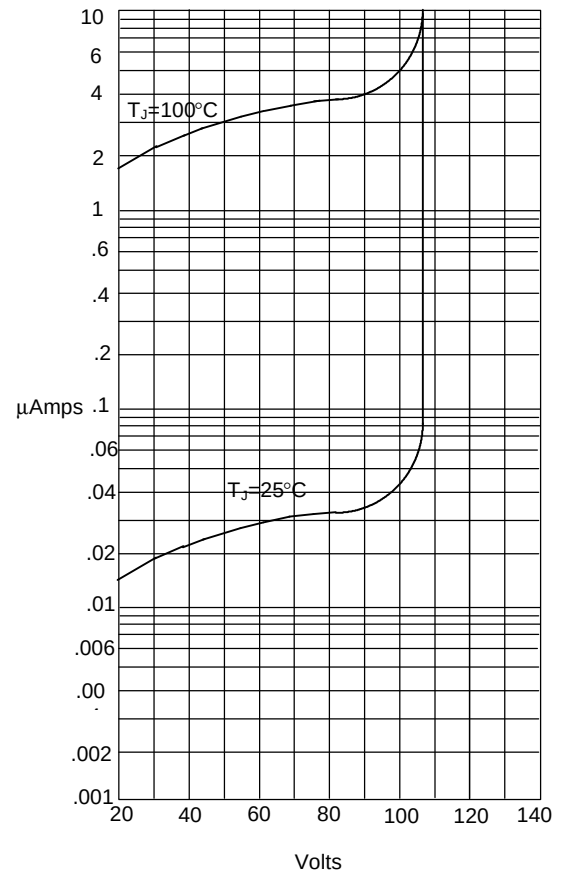
# RS801 thru RS807

Figure 1  
Typical Forward Characteristics



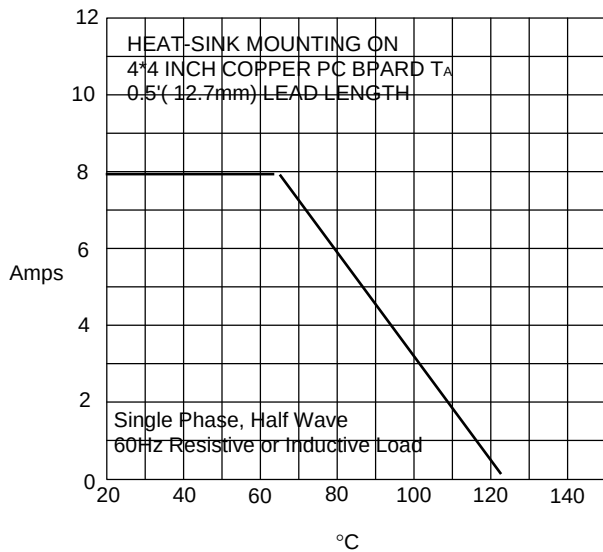
Instantaneous Forward Current - Amperes versus  
Instantaneous Forward Voltage - Volts

Figure 2  
Typical Reverse Characteristics



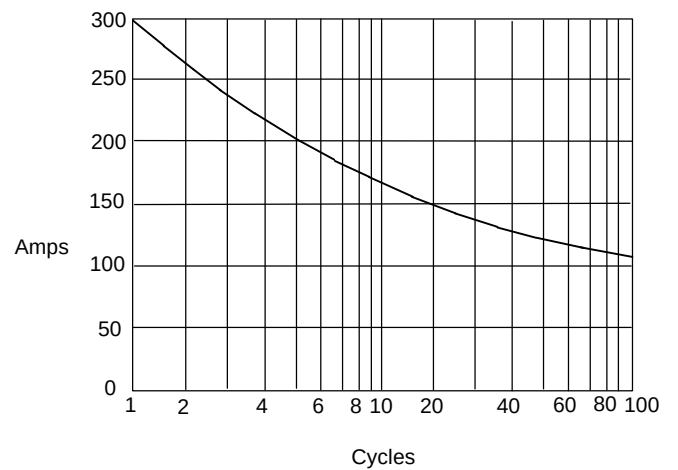
Instantaneous Reverse Leakage Current - MicroAmperes versus  
Percent Of Rated Peak Reverse Voltage - Volts

Figure 3  
Forward Derating Curve



Average Forward Rectified Current - Amperes versus  
Ambient Temperature - °C

Figure 4  
Peak Forward Surge Current



Peak Forward Surge Current - Amperes versus  
Number Of Cycles At 60Hz - Cycles