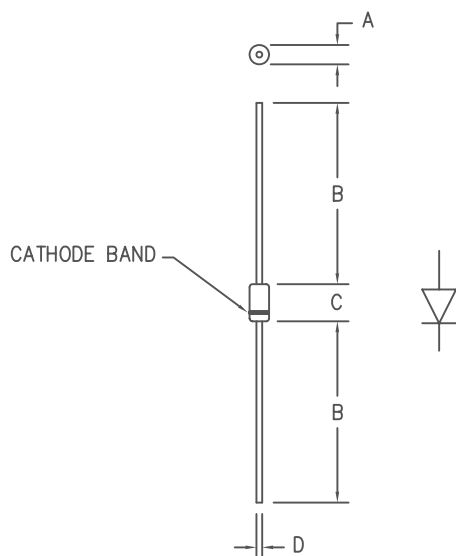


# 1 Amp Schottky Rectifier MSG108 — MSG109



| Dim. | Inches  |         | Millimeter |         | Notes |
|------|---------|---------|------------|---------|-------|
|      | Minimum | Maximum | Minimum    | Maximum |       |
| A    | .081    | .107    | 2.057      | 2.718   | Dia.  |
| B    | 1.10    | ---     | 27.94      | ---     |       |
| C    | .160    | .205    | 4.064      | 5.207   |       |
| D    | .028    | .034    | .711       | .864    | Dia.  |

GLASS HERMETIC DO41

| Microsemi<br>Catalog Number | Working<br>Peak Reverse<br>Voltage | Repetitive<br>Peak Reverse<br>Voltage | <ul style="list-style-type: none"> <li>• Schottky Barrier Rectifier</li> <li>• Guard Ring Protection</li> <li>• 175°C Junction Temperature</li> <li>• <math>V_{RRM}</math> 80 to 90 Volts</li> <li>• Hermetic Package</li> </ul> |
|-----------------------------|------------------------------------|---------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| MSG108<br>MSG109            | 80V<br>90V                         | 80V<br>90V                            |                                                                                                                                                                                                                                  |

| Electrical Characteristics                             |                      |                                       |
|--------------------------------------------------------|----------------------|---------------------------------------|
| Average forward current                                | $I_F(AV)$ 1.0 Amps   | $T_L = 125^\circ C$ Square wave       |
| Maximum surge current                                  | $I_{FSM}$ 50 Amps    | 8.3ms, half sine, $T_J = 175^\circ C$ |
| Max peak forward voltage                               | $V_{FM}$ .81 Volts   | $I_{FM} = 1.0A; T_J = 25^\circ C^*$   |
| Max peak reverse current                               | $I_{RM}$ 100 $\mu A$ | $V_{RRM}, T_J = 25^\circ C$           |
| Typical junction capacitance                           | $C_J$ 45pF           | $V_R = 5.0V, T_J = 25^\circ C$        |
| *Pulse test: Pulse width 300 $\mu sec$ , Duty cycle 2% |                      |                                       |

| Thermal and Mechanical Characteristics |                 |                                  |
|----------------------------------------|-----------------|----------------------------------|
| Storage temperature range              | $T_{STG}$       | $-65^\circ C$ to $175^\circ C$   |
| Operating junction temp range          | $T_J$           | $-65^\circ C$ to $175^\circ C$   |
| Maximum thermal resistance             | $R_{\theta JL}$ | $30^\circ C/W$ Junction to Lead  |
| Weight                                 |                 | .012 ounces (0.38 grams) typical |



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05-25-07 Rev. 4

# MSG108 — MSG109

Figure 1  
Typical Forward Characteristics

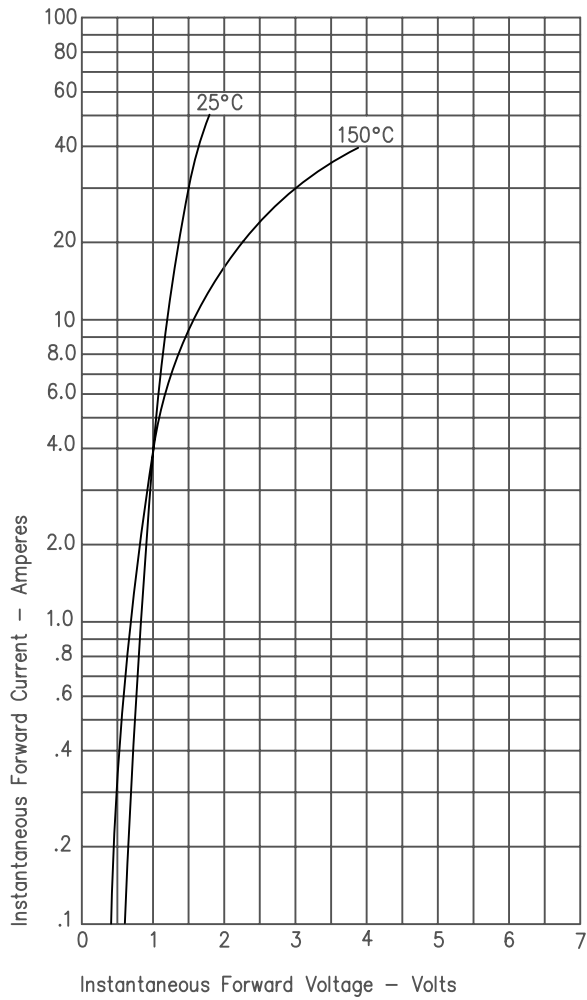


Figure 3  
Typical Junction Capacitance

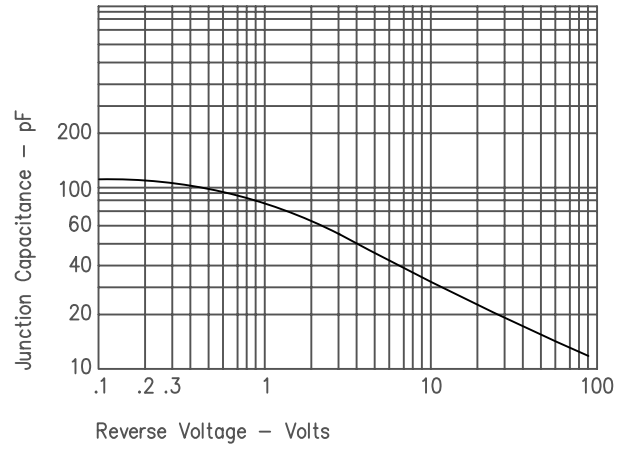


Figure 2  
Typical Reverse Characteristics

