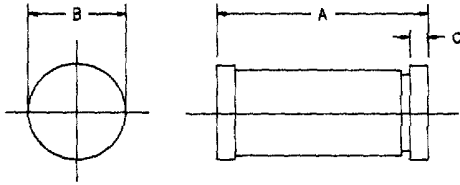


1 Amp Schottky Rectifier HSM180, HSM190

C



| Dim. | Inches | | Millimeter | | Notes |
|------|---------|---------|------------|---------|-------|
| | Minimum | Maximum | Minimum | Maximum | |
| A | .189 | .205 | 4.80 | 5.20 | |
| B | .094 | .105 | 2.39 | 2.66 | Dia. |
| C | .016 | .022 | .41 | .55 | |

GLASS HERMETIC DO213AB

| Microsemi Catalog Number | Working Peak Reverse Voltage | Repetitive Peak Reverse Voltage | |
|--------------------------|------------------------------|---------------------------------|--|
| HSM180 | 80V | 80V | <ul style="list-style-type: none"> • Schottky Barrier Rectifier • Guard Ring Protection • 175°C Junction Temperature • VRRM 80 to 90 Volts • Economical Surface Mount Package |
| HSM190 | 90V | 90V | |

| Electrical Characteristics | | | |
|--|----------------------------|---|--|
| Average forward current | $I_F(AV)$ 1.0 Amps | $T_A = 138^\circ\text{C}$, Square wave, $R_{\theta JC} = 45^\circ\text{C/W}$ | |
| Maximum surge current | I_{FSM} 75 Amps | 8.3ms, half sine, $T_J = 150^\circ\text{C}$ | |
| Max peak forward voltage | V_{FM} .53 Volts | $I_{FM} = 0.1\text{A}; T_J = 25^\circ\text{C}^*$ | |
| Max peak forward voltage | V_{FM} .81 Volts | $I_{FM} = 1.0\text{A}; T_J = 25^\circ\text{C}^*$ | |
| Max peak reverse current | I_{RM} 100 μA | $V_{RRM}, T_J = 25^\circ\text{C}$ | |
| Typical junction capacitance | C_J 45pF | $V_R = 5.0\text{V}, T_J = 25^\circ\text{C}$ | |
| *Pulse test: Pulse width 300 μsec , Duty cycle 2% | | | |

| Thermal and Mechanical Characteristics | | |
|--|-----------------|--|
| Storage temperature range | T_{STG} | -65°C to 175°C |
| Operating junction temp range | T_J | -65°C to 150°C |
| Maximum thermal resistance | $R_{\theta JC}$ | 45°C/W Junction to Case |
| Weight | | .0047 ounces (.012 grams) typical |

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Colorado

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FAX: 303-466-3775

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HSM180, HSM190

Figure 1
Typical Forward Characteristics

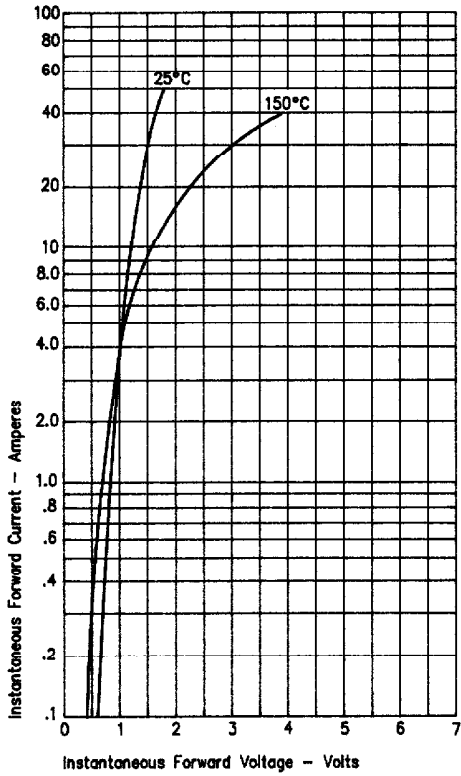


Figure 3
Typical Junction Capacitance

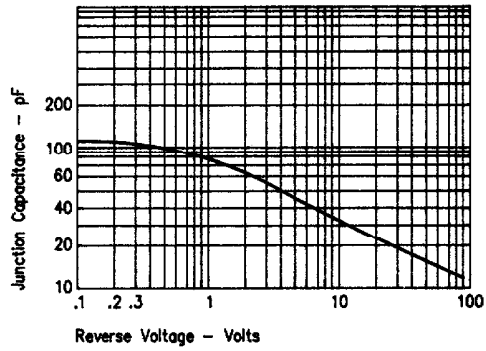


Figure 2
Typical Reverse Characteristics

