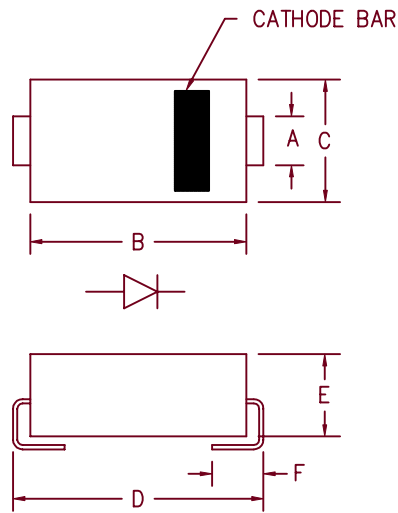


1 Amp Schottky Rectifier HSM180J — HSM1100J



| Dim. | Inches | | Millimeter | | Notes |
|------|---------|---------|------------|---------|-------|
| | Minimum | Maximum | Minimum | Maximum | |
| A | .073 | .087 | 1.85 | 2.21 | |
| B | .160 | .180 | 4.06 | 4.57 | |
| C | .130 | .155 | 3.30 | 3.94 | |
| D | .205 | .220 | 5.21 | 5.59 | |
| E | .075 | .130 | 1.91 | 3.30 | |
| F | .030 | .060 | .760 | 1.52 | |

D0-214BA Package

| Microsemi Catalog Number | Industry Part Number | Working Reverse Voltage | Peak Reverse Voltage | Repetitive Peak Reverse Voltage |
|--------------------------|--|-------------------------|----------------------|---------------------------------|
| HSM180J | SK18 | 80V | 80V | 80V |
| HSM190J | MBR5190TR MBR5190T3 | 90V | 90V | 90V |
| HSM1100J | 10BQ100 10MQ100N MBR51100T3 SK110 | 100V | 100V | 100V |

- Underwriters Laboratory Flammability Class 94V-0
- Schottky Barrier Rectifier
- Guard Ring Protection
- 175°C Junction Temperature
- Surface mount package

Electrical Characteristics

Average forward current
Maximum surge current
Max peak forward voltage
Max peak forward voltage
Max peak reverse current
Typical junction capacitance

$I_F(AV)$ 1.0 Amps
 I_{FSM} 40 Amps
 V_{FM} .57 Volts
 V_{FM} .84 Volts
 I_{RM} 100 μ A
 C_J 45pF

$T_L = 140^\circ\text{C}$, Square wave, $R_{\theta JL} = 15^\circ\text{C/W}$
8.3ms, half sine, $T_J = 175^\circ\text{C}$
 $I_{FM} = 0.1\text{A}; T_J = 25^\circ\text{C}^*$
 $I_{FM} = 1.0\text{A}; T_J = 25^\circ\text{C}^*$
 $V_{RRM}, T_J = 25^\circ\text{C}$
 $V_R = 5.0\text{V}, T_J = 25^\circ\text{C}$

*Pulse test: Pulse width 300 μ sec, Duty cycle 2%

Thermal and Mechanical Characteristics

Storage temperature range
Operating junction temp range
Maximum thermal resistance
Weight

T_{STG}
 T_J
 $R_{\theta JL}$

-55°C to 175°C
-55°C to 175°C
15°C/W junction to lead
.0047 ounces (.013 grams) typical

11-20-01 Rev. 4

HSM180J — HSM1100J

Figure 1
Typical Forward Characteristics

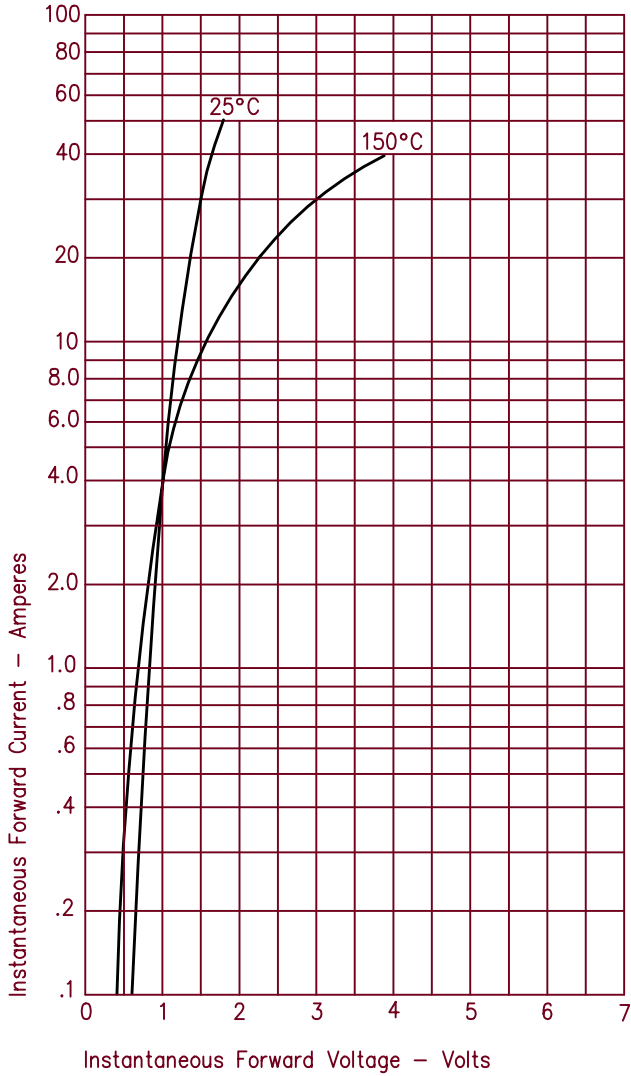


Figure 3
Typical Junction Capacitance

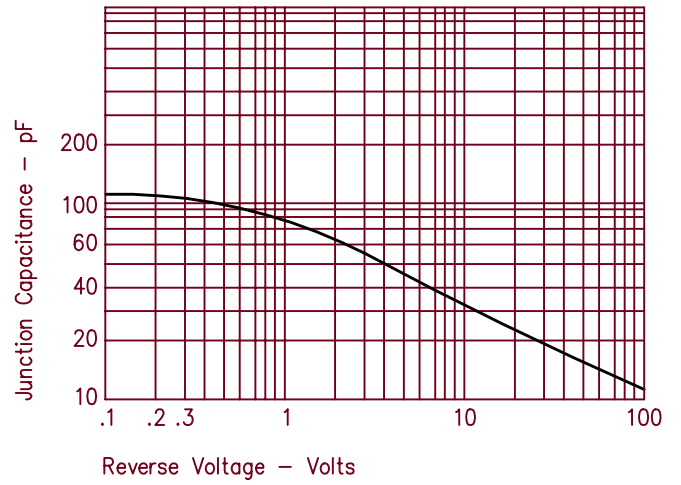
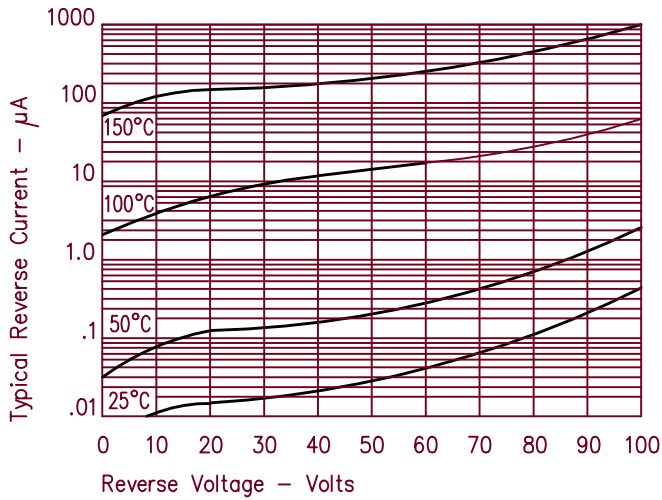


Figure 2
Typical Reverse Characteristics





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