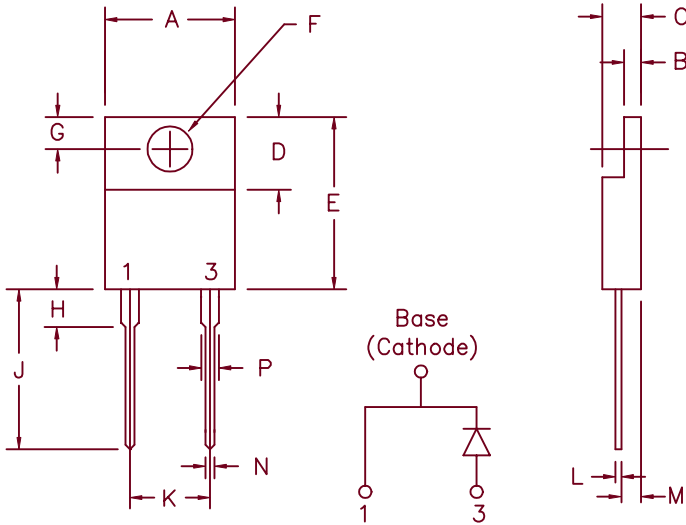


10 Amp Schottky Rectifier MS1045



| Dim. | Inches | | Millimeter | | Notes |
|------|---------|---------|------------|---------|-------|
| | Minimum | Maximum | Minimum | Maximum | |
| A | .390 | .415 | 9.91 | 10.54 | |
| B | .045 | .055 | 1.14 | 1.40 | |
| C | .180 | .190 | 4.57 | 4.83 | |
| D | .245 | .260 | 6.22 | 6.60 | |
| E | .550 | .650 | 13.97 | 16.51 | |
| F | .139 | .155 | 3.53 | 3.94 | Dia. |
| G | .100 | .120 | 2.54 | 3.05 | |
| H | --- | .250 | --- | 6.35 | |
| J | .500 | .580 | 12.70 | 14.73 | |
| K | .190 | .210 | 4.83 | 5.33 | |
| L | .014 | .025 | 0.35 | 0.63 | |
| M | .080 | .115 | 2.03 | 2.92 | |
| N | .028 | .038 | 0.71 | 0.96 | |
| P | .045 | .055 | 1.14 | 1.40 | |

Similar to TO-220AC

| Microsemi Catalog Number | Working Peak Reverse Voltage | Repetitive Peak Reverse Voltage |
|--------------------------|------------------------------|---------------------------------|
| MS1045 | 45V | 45V |

- Schottky Barrier Rectifier
- Guard Ring Protection
- Low Forward Voltage
- 150°C Junction Temperature
- Reverse Energy Tested

| Electrical Characteristics | | |
|---|-----------------------------|--|
| Average forward current | I _{F(AV)} 10 Amps | T _C = 106°C Square wave, R _{θJC} = 2.5°C/W |
| Maximum surge current | I _{F(AV)} 225 Amps | 8.3 ms, half sine, T _J = 150°C |
| Max peak forward voltage | V _{FM} .47 Volts | I _{FM} = 10A: T _J = 150°C* |
| Max peak forward voltage | V _{FM} .56 Volts | I _{FM} = 10A: T _J = 25°C* |
| Max peak reverse current | I _{RM} 2 mA | V _{RRM} , T _J = 25°C |
| Typical junction capacitance | C _J 575 pF | V _R = 5.0V, T _J = 25°C |
| * Pulse test: Pulse width 300 μsec, Duty cycle 2% | | |

| Thermal and Mechanical Characteristics | | |
|--|------------------|--------------------------------|
| Storage temperature range | T _{STG} | -55°C to 175°C |
| Operating junction temp range | T _J | -55°C to 150°C |
| Maximum thermal resistance | R _{θJC} | 2.5°C/W Junction to Case |
| Mounting torque | | 8-12 inch pounds (6-32 screw) |
| Weight | | .08 ounces (2.3 grams) typical |

MS1045

Figure 1
Typical Forward Characteristic

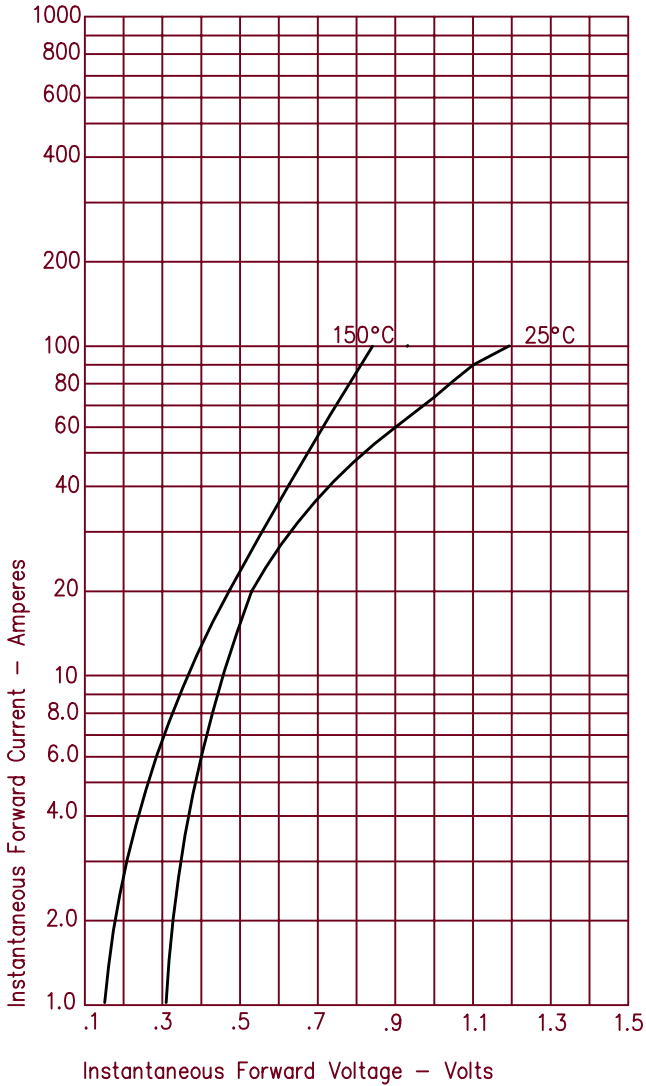


Figure 3
Typical Junction Capacitance

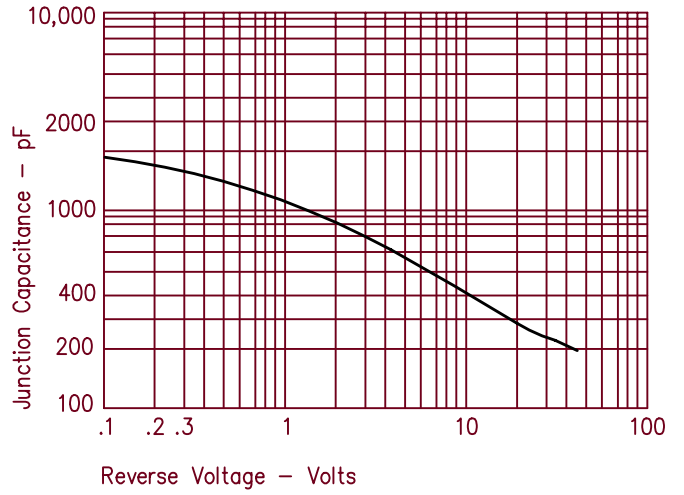


Figure 4
Forward Current Derating

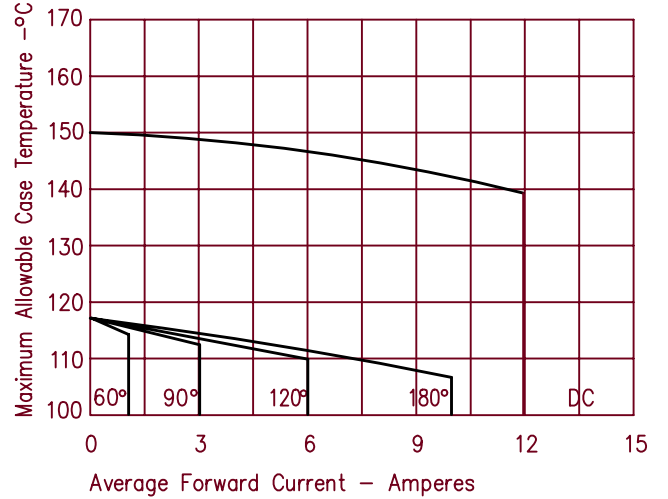


Figure 2
Typical Reverse Characteristics

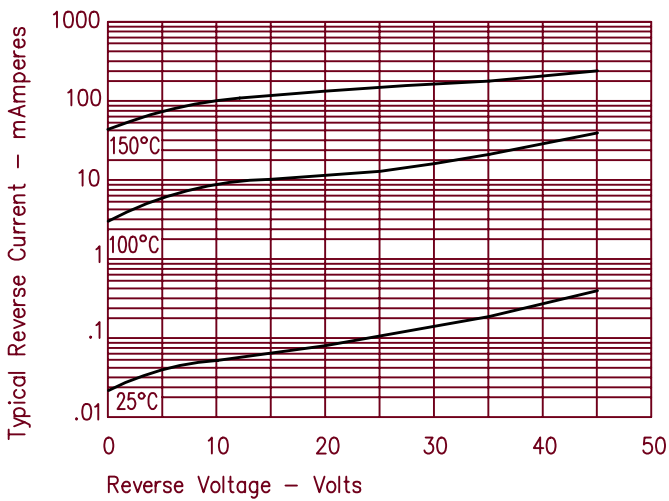


Figure 5
Maximum Forward Power Dissipation

