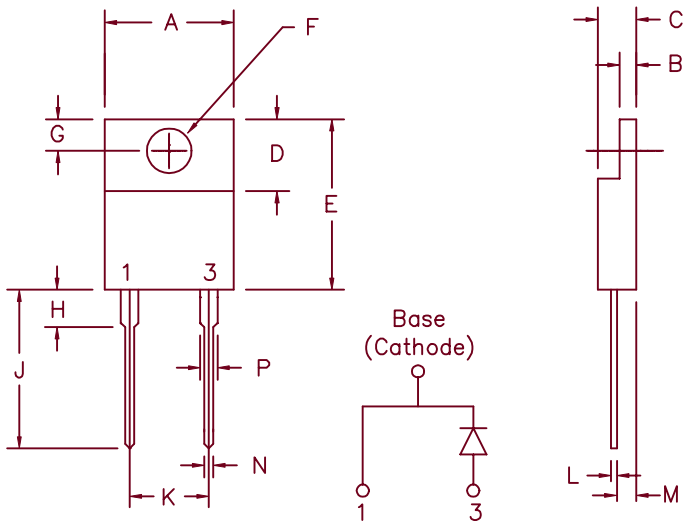


20 Amp Schottky OR'ing Rectifier MS2015



| 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 | Industry Part Number | Working Peak Reverse Voltage | Repetitive Peak Reverse Voltage |
|--------------------------|---------------------------------|------------------------------|---------------------------------|
| MS2015 | 19TQ015 20L15T STPS20L15D | 15V | 15V |

- Schottky barrier rectifier
- $V_f @ 20A, 125^\circ C = 0.29V$
- High surge capacity
- $125^\circ C$ Junction temperature
- Guard ring reverse protection

Electrical Characteristics

| | | |
|---------------------------------|---------------------|--|
| Average Forward Current | $I_{F(AV)}$ 20 Amps | $T_C = 105^\circ C$ |
| Maximum Surge Current | I_{FSM} 250 Amps | 8.3ms, half sine |
| Max. Repetitive Reverse Current | $I_R(OV)$ 2 Amps | $f = 1KHZ, 25^\circ C, 1\mu s$ square wave |
| Max. Peak Forward Voltage | V_{FM} .40 Volts | $I_{FM} = 20A, T_J = 25^\circ C^*$ |
| Typ. Peak Forward Voltage | V_{FM} .29 Volts | $I_{FM} = 20A, T_J = 125^\circ C^*$ |
| Max. Peak Reverse Current | I_{RM} 8 mA | $V_{RRM}, T_J = 25^\circ C$ |
| Typ. Peak Reverse Current | I_{RM} 320 mA | $V_{RRM}, T_J = 100^\circ C^*$ |
| Typ. Peak Reverse Current | I_{RM} 175 mA | $V_R = 5.0V, T_J = 100^\circ C^*$ |
| Typical Junction Capacitance | C_J 1550 pF | $V_R = 5.0V, T_J = 25^\circ C$ |

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

Thermal and Mechanical Characteristics

| | | |
|-------------------------------|-----------------|--------------------------------|
| Storage temp range | T_{STG} | $-55^\circ C$ to $150^\circ C$ |
| Operating junction temp range | T_J | $-55^\circ C$ to $125^\circ C$ |
| Max. thermal resistance | $R_{\theta JC}$ | $1.5^\circ C/W$ |
| Mounting torque | | 8-12 inch pounds (6-32 screw) |
| Weight | | .08 ounces (2.3 grams) typical |

MS2015

Figure 1
Typical Forward Characteristics

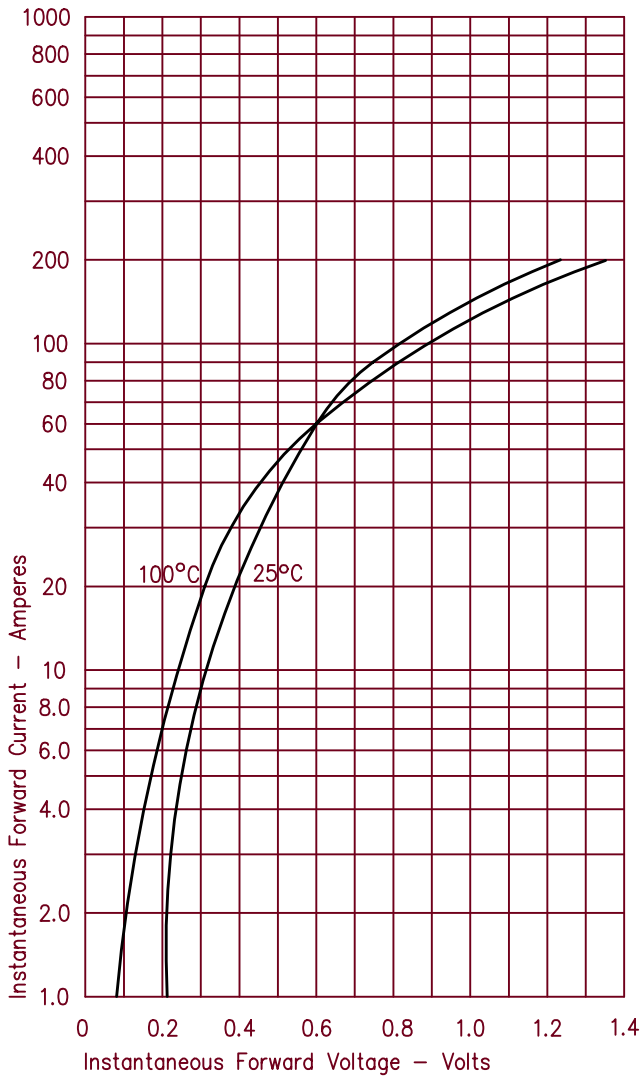


Figure 3
Typical Junction Capacitance

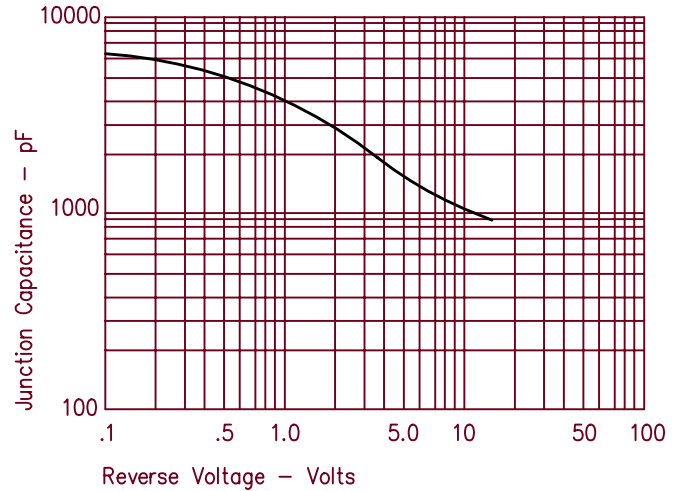


Figure 4
Forward Current Derating

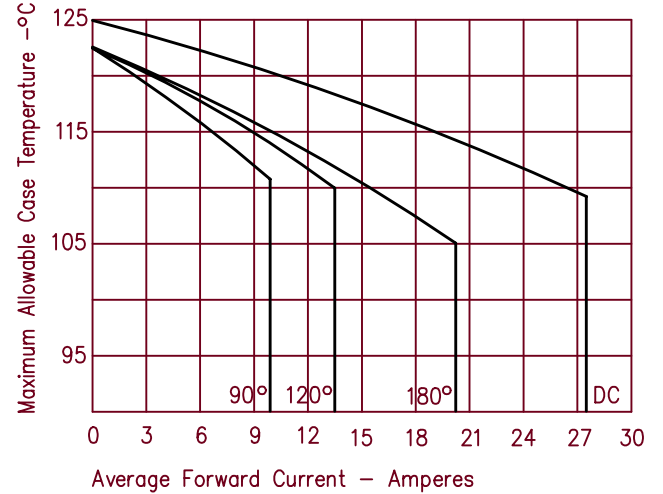


Figure 2
Typical Reverse Characteristics

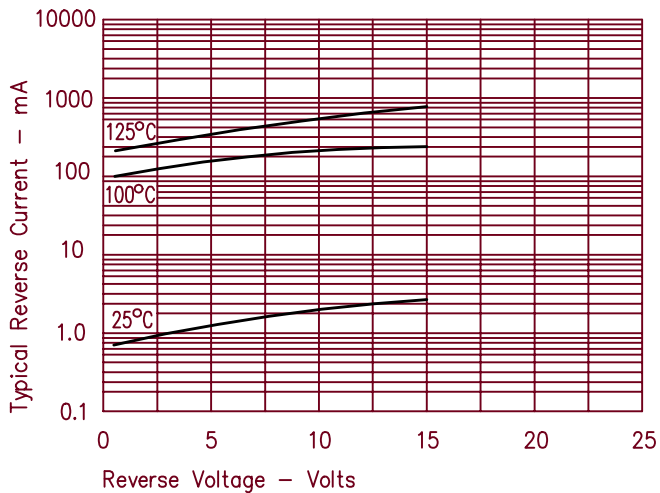


Figure 5
Maximum Forward Power Dissipation

