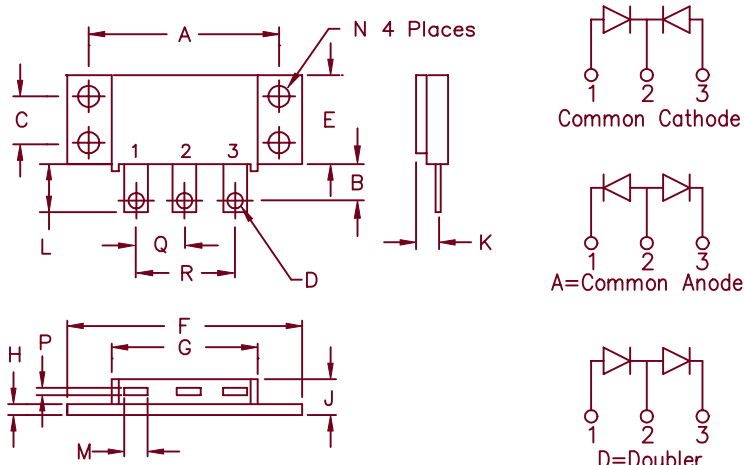


Schottky Powermod FST19235 – FST19245



Notes:
Baseplate: Nickel plated copper;
electrically isolated
Pins: Nickel plated copper

| | Dim. Inches | | Millimeters | | Notes |
|---|-------------|-------|-------------|-------|------------|
| | Min. | Max. | Min. | Max. | |
| A | 1.995 | 2.005 | 50.67 | 50.93 | |
| B | 0.300 | 0.325 | 7.62 | 8.26 | |
| C | 0.495 | 0.505 | 12.57 | 12.83 | |
| D | 0.182 | 0.192 | 4.62 | 4.88 | Dia. |
| E | 0.990 | 1.010 | 25.15 | 25.65 | |
| F | 2.390 | 2.410 | 60.71 | 61.21 | |
| G | 1.500 | 1.525 | 38.10 | 38.70 | |
| H | 0.120 | 0.130 | 3.05 | 3.30 | |
| J | --- | 0.400 | --- | 10.16 | |
| K | 0.240 | 0.260 | 6.10 | 6.60 | to Lead CL |
| L | 0.490 | 0.510 | 12.45 | 12.95 | |
| M | 0.330 | 0.350 | 8.38 | 6.90 | |
| N | 0.175 | 0.195 | 4.45 | 4.95 | Dia. |
| P | 0.035 | 0.045 | 0.89 | 1.14 | |
| Q | 0.445 | 0.455 | 11.30 | 11.56 | |
| R | 0.890 | 0.910 | 22.61 | 23.11 | |

TO-249

| Microsemi Catalog Number | Working Peak Reverse Voltage | Repetitive Peak Reverse Voltage |
|--------------------------|------------------------------|---------------------------------|
| FST19235* | 35V | 35V |
| FST19240* | 40V | 40V |
| FST19245* | 45V | 45V |

*Add the Suffix A for Common Anode, D for Doubler

- Guard Ring Protection
- Electrically Isolated Base
- Schottky Barrier Rectifier
- Low Forward Voltage
- Reverse Energy Tested
- V_{RRM} 35 to 45 Volts

Electrical Characteristics

| | | |
|--------------------------------------|----------------------|--|
| Average Forward Current per pkg. | $I_{F(AV)}$ 200 Amps | $T_C = 86^\circ\text{C}$, Square wave, $R_{\theta JC} = 0.35^\circ\text{C/W}$ |
| Average Forward Current per leg | $I_{F(AV)}$ 100 Amps | $T_C = 86^\circ\text{C}$, Square wave, $R_{\theta JC} = 0.7^\circ\text{C/W}$ |
| Maximum Surge Current per leg | I_{FSM} 1500 Amps | 8.3ms, half sine, $T_J = 150^\circ\text{C}$ |
| Max. Peak Forward Voltage per leg | V_{FM} 0.40 Volts | $I_{FM} = 100\text{A}; T_J = 150^\circ\text{C}^*$ |
| Max. Peak Forward Voltage per leg | V_{FM} 0.52 Volts | $I_{FM} = 100\text{A}; T_J = 25^\circ\text{C}^*$ |
| Max. Peak Reverse Current per leg | I_{RM} 2A | $V_{RRM}, T_J = 125^\circ\text{C}^*$ |
| Max. Peak Reverse Current per leg | I_{RM} 10 mA | $V_{RRM}, T_J = 25^\circ\text{C}$ |
| Typical Junction Capacitance per leg | C_J 5500 pF | $V_R = 5.0\text{V}, T_J = 25^\circ\text{C}$ |

*Pulse test: Pulse width 300 μsec , Duty cycle 2%

Thermal and Mechanical Characteristics

| | | |
|--------------------------------------|-----------------|--|
| Storage temp range | T_{STG} | -55°C to 150°C |
| Operating junction temp range | T_J | -55°C to 150°C |
| Max thermal resistance per leg | $R_{\theta JC}$ | 0.7°C/W Junction to case |
| Max thermal resistance per pkg. | $R_{\theta JC}$ | 0.35°C/W Junction to case |
| Typical thermal resistance (greased) | $R_{\theta CS}$ | 0.1°C/W Case to sink |
| Weight | | 2.3 ounces (58.5 grams) typical |
| Mounting Torque | | 15–20 inch pounds |

Figure 1
Typical Forward Characteristics – Per Leg

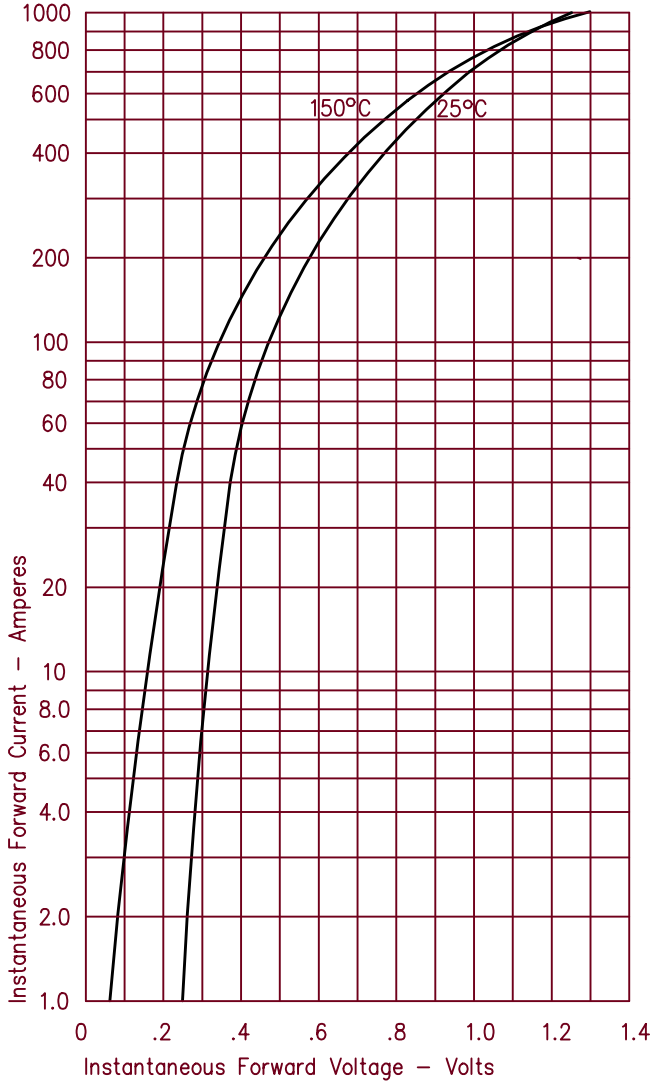


Figure 3
Typical Junction Capacitance – Per Leg

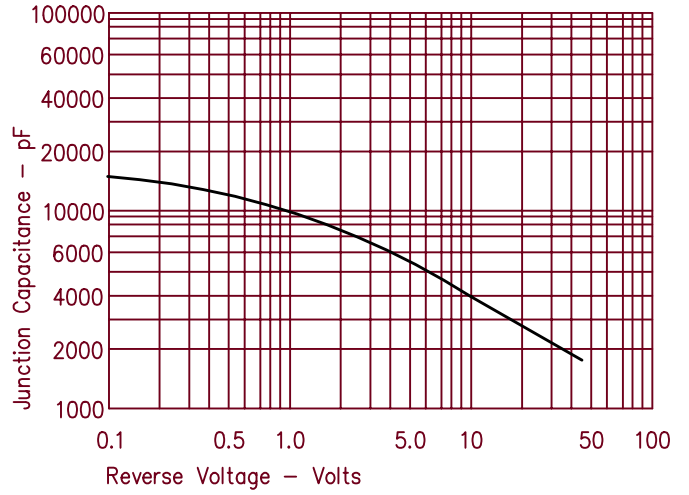


Figure 4
Forward Current Derating – Per Leg

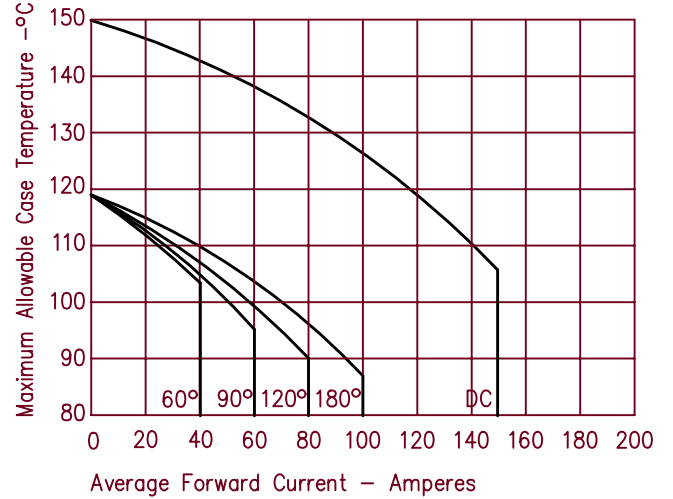


Figure 2
Typical Reverse Characteristics – Per Leg

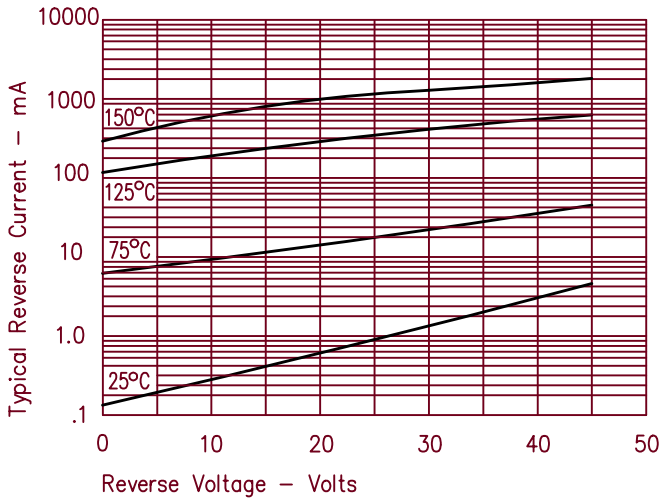


Figure 5
Maximum Forward Power Dissipation – Per Leg

