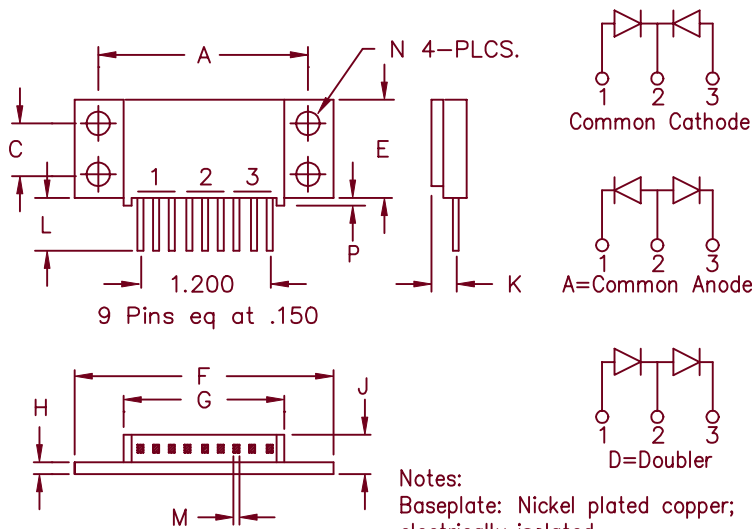


Schottky Powermod

FST15135 — FST15150



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

| Dim. | Inches | | Millimeter | | Notes |
|------|---------|---------|------------|---------|----------------|
| | Minimum | Maximum | Minimum | Maximum | |
| A | 1.995 | 2.005 | 50.67 | 50.93 | |
| C | 0.495 | 0.506 | 12.57 | 12.83 | |
| E | 0.990 | 1.010 | 25.15 | 25.65 | |
| F | 2.390 | 2.410 | 60.71 | 61.21 | |
| G | 1.490 | 1.510 | 37.85 | 38.35 | |
| 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 ϕ |
| L | 0.490 | 0.510 | 12.45 | 12.95 | |
| M | 0.040 | .050 | 1.02 | 1.27 | Square |
| N | 0.175 | 0.195 | 4.45 | 4.95 | Dia |
| P | 0.032 | 0.052 | 0.81 | 1.32 | |

| Microsemi Catalog Number | Industry Part Number | Working Peak Reverse Voltage | Repetitive Peak Reverse Voltage |
|--------------------------|----------------------|------------------------------|---------------------------------|
| FST15135* | 151CMQ035 | 35V | 35V |
| FST15140* | 151CMQ040 | 40V | 40V |
| FST15145* | 151CMQ045 | 45V | 45V |
| FST15150* | | 50V | 50V |

*Add Suffix A for Common Anode, D for Doubler

- Schottky Barrier Rectifier
- Guard Ring for Reverse Protection
- V_{RRM} 35 to 50 Volts
- High surge capacity
- Reverse Energy Tested

Electrical Characteristics

| | | |
|--|---------------------|--|
| Average forward current per pkg | $I_F(AV)$ 150 Amps | $T_C = 118^\circ C$, square wave, $R_{\theta JC} = 0.5^\circ C/W$ |
| Average forward current per leg | $I_F(AV)$ 75 Amps | $T_C = 118^\circ C$, square wave, $R_{\theta JC} = 1.0^\circ C/W$ |
| Maximum surge current per leg | I_{FSM} 1200 Amps | 8.3ms, half sine, $T_J = 175^\circ C$ |
| Maximum repetitive reverse current per leg | $I_R(OV)$ 2 Amps | $f = 1$ KHz, $25^\circ C$, 1 μ sec square wave |
| Max peak forward voltage per leg | V_{FM} 0.57 Volts | $I_{FM} = 75A$; $T_J = 175^\circ C^*$ |
| Max peak forward voltage per leg | V_{FM} 0.72 Volts | $I_{FM} = 75A$; $T_J = 25^\circ C^*$ |
| Max peak reverse current per leg | I_{RM} 30 mA | $V_{RRM}, T_J = 125^\circ C^*$ |
| Max peak reverse current per leg | I_{RM} 1.5 mA | $V_{RRM}, T_J = 25^\circ C$ |
| Typical junction capacitance per leg | C_J 2300 pF | $V_R = 5.0V, T_C = 25^\circ C$ |

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

Thermal and Mechanical Characteristics

| | | |
|--------------------------------------|-----------------|-----------------------------------|
| Storage temp range | T_{STG} | -55 $^\circ C$ to 175 $^\circ C$ |
| Operating junction temp range | T_J | -55 $^\circ C$ to 175 $^\circ C$ |
| Max thermal resistance per leg | $R_{\theta JC}$ | 1.0 $^\circ C/W$ Junction to case |
| Max thermal resistance per pkg | $R_{\theta JC}$ | 0.5 $^\circ C/W$ Junction to case |
| Typical thermal resistance (greased) | $R_{\theta CS}$ | 0.1 $^\circ C/W$ Case to sink |
| Mounting Torque | | 15 - 20 inch pounds |
| Weight | | 2.5 ounces (71 grams) typical |

FST15135 — FST15150

Figure 1
Typical Forward Characteristics — Per Leg

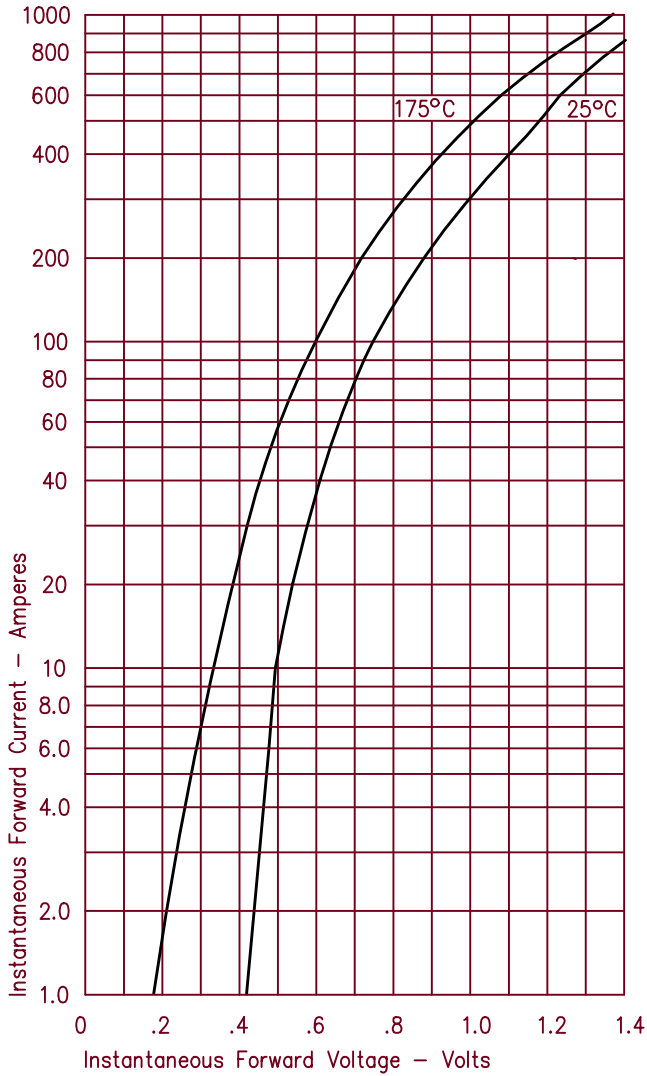


Figure 3
Typical Junction Capacitance — Per Leg

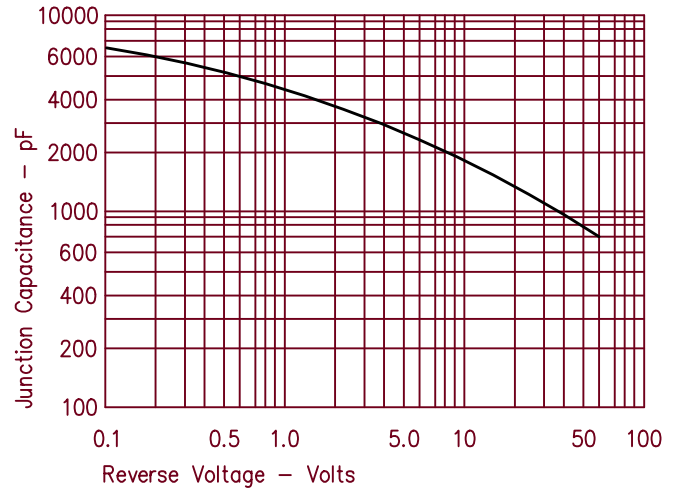


Figure 4
Forward Current Derating — Per Leg

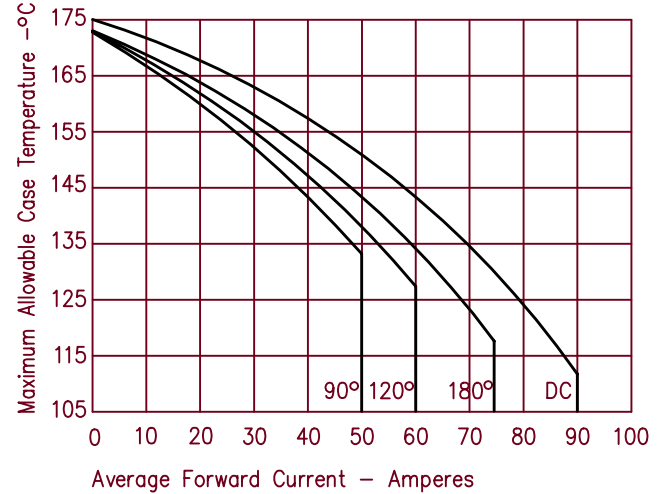


Figure 2
Typical Reverse Characteristics — Per Leg

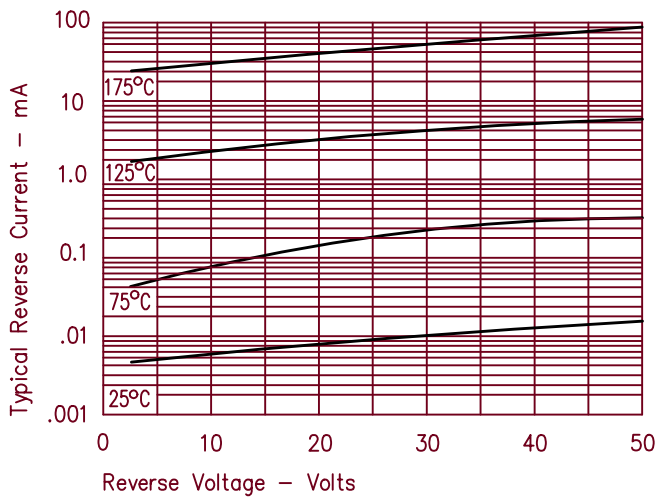


Figure 5
Maximum Forward Power Dissipation — Per Leg

