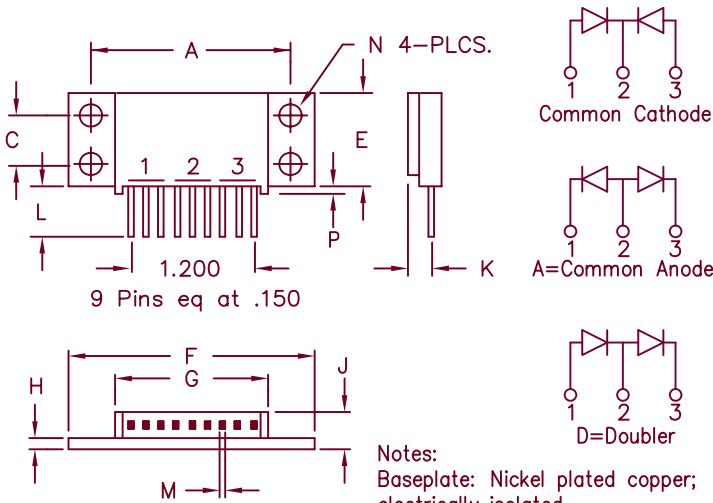


Schottky PowerMod FST15230



| 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 | Lead \varnothing |
| L | 0.490 | 0.510 | 12.45 | 12.95 | |
| M | 0.040 | .050 | 1.02 | 1.27 | Square Dia |
| N | 0.175 | 0.195 | 4.45 | 4.95 | |
| P | 0.032 | 0.052 | 0.81 | 1.32 | |

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

| Microsemi Catalog Number | Industry Part No. | Working Peak Reverse Voltage | Repetitive Peak Reverse Voltage |
|--------------------------|-------------------|------------------------------|---------------------------------|
| FST15230* | 152CMQ030 | 30V | 30V |

*Add Suffix A for Common Anode, D for Doubler

- Schottky Barrier Rectifier
- Guard Ring for Reverse Protection
- Low forward voltage
- VRRM 30 Volts
- Electrically isolated base
- Reverse Energy Tested
- Center tap

Electrical Characteristics

| | | |
|---|-----------------------------|--|
| Average forward current per pkg | I _{F(AV)} 150 Amps | T _C = 85°C, Square wave, R _{θJC} = 0.5°C/W |
| Average forward current per leg | I _{F(AV)} 75 Amps | T _C = 85°C, Square wave, R _{θJC} = 1.0°C/W |
| Maximum surge current per leg | I _{FSM} 1000 Amps | 8.3 ms, half sine T _J = 150°C |
| Max repetitive peak reverse current per leg | I _{R(OV)} 2 Amps | f = 1 KHz, 25°C, 1 μsec Square wave |
| Max peak forward voltage per leg | V _{FM} .54 Volts | I _{FM} = 75A: T _J = 125°C* |
| Max peak forward voltage per leg | V _{FM} .58 Volts | I _{FM} = 75A: T _J = 25°C* |
| Max peak reverse current per leg | I _{RM} 300 mA | V _{RRM} , T _J = 125°C* |
| Max peak reverse current per leg | I _{RM} 1 mA | V _{RRM} , T _J = 25°C |
| Typical junction capacitance per leg | C _J 2400 pF | V _R = 5.0V, T _J = 25°C |

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

Thermal and Mechanical Characteristics

| | | |
|--------------------------------------|------------------|-------------------------------|
| Storage temp range | T _{STG} | -55°C to 175°C |
| Operating junction temp range | T _J | -55°C to 150°C |
| Max thermal resistance per leg | R _{θJC} | 1.0°C/W Junction to case |
| Max thermal resistance per pkg. | R _{θJC} | 0.5°C/W Junction to case |
| Typical thermal resistance (greased) | R _{θCS} | 0.1°C/W Case to sink |
| Mounting torque | | 15-20 inch pounds |
| Weight | | 2.5 ounces (71 grams) typical |



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05-30-07 Rev. 2

FST15230

Figure 1
Typical Forward Characteristics – Per Leg

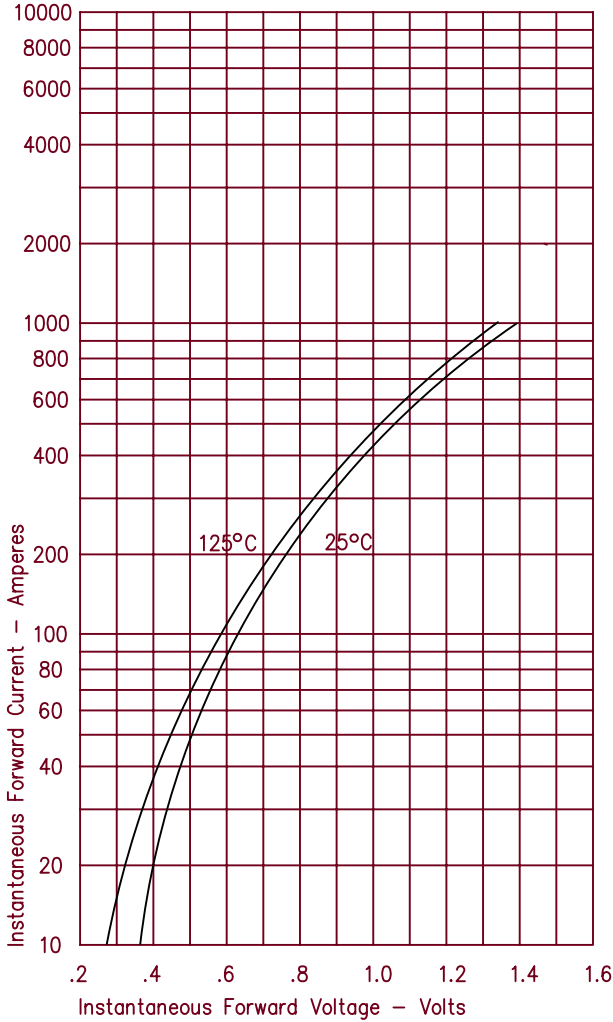


Figure 3
Typical Junction Capacitance – Per Leg

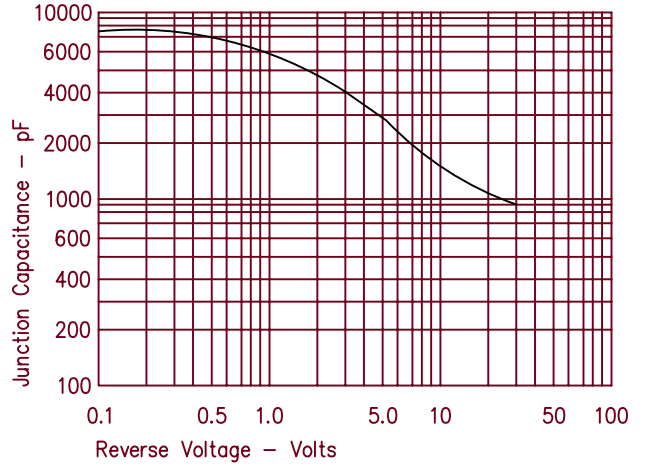


Figure 4
Forward Current Derating – Per Leg

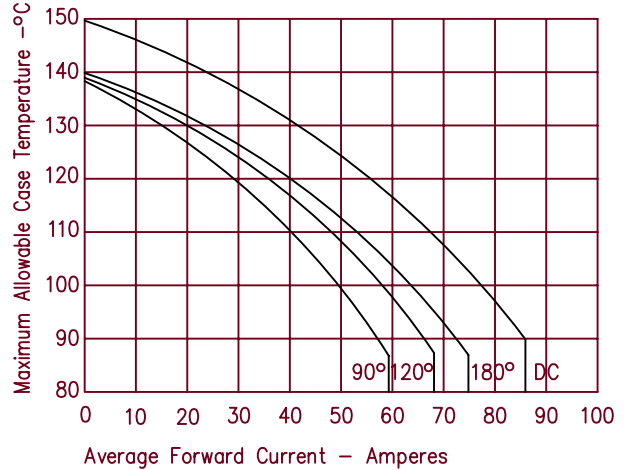


Figure 2
Typical Reverse Characteristics – Per Leg

