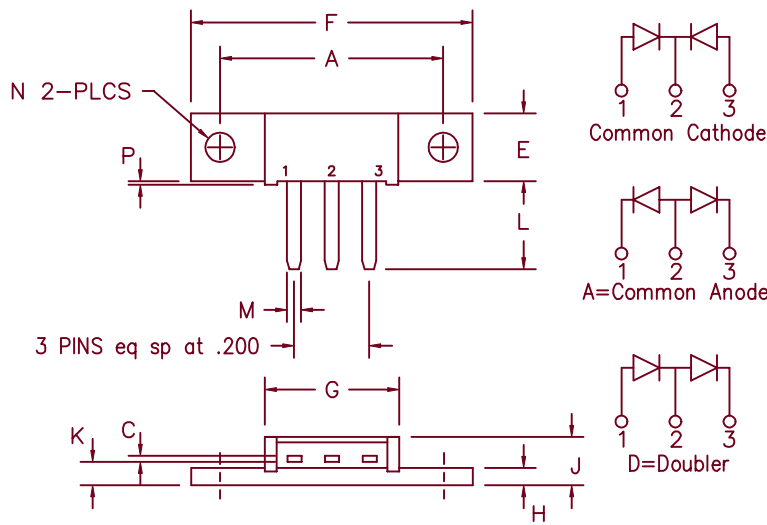


Schottky Diode FST8115, FST8120



| Dim. | Inches | | Millimeter | | Notes |
|------|---------|---------|------------|---------|-------|
| | Minimum | Maximum | Minimum | Maximum | |
| A | 1.180 | 1.195 | 29.97 | 30.35 | |
| C | .027 | .037 | 0.69 | 0.94 | |
| E | .350 | .370 | 8.89 | 9.40 | |
| F | 1.490 | 1.510 | 37.85 | 38.35 | |
| G | .695 | .715 | 17.65 | 18.16 | |
| H | .088 | .098 | 2.24 | 2.49 | |
| J | .240 | .260 | 6.10 | 6.60 | |
| K | .115 | .135 | 2.92 | 3.43 | |
| L | .460 | .480 | 11.68 | 12.19 | |
| M | .065 | .085 | 1.65 | 2.16 | |
| N | .151 | .161 | 3.84 | 4.09 | Dia. |
| P | .015 | .025 | 0.38 | 0.64 | |

Note: Baseplate Common with Pin 2

| Microsemi Catalog Number | Industry Part Number | Working Peak Reverse Voltage | Repetitive Peak Reverse Voltage |
|--------------------------|----------------------|------------------------------|---------------------------------|
| FST8115* | | 15V | 15V |
| FST8120* | 87CNQ020A | 20V | 20V |

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

- Schottky Barrier Rectifier
- Guard ring protection
- Common cathode center tap
- 2X40 Amperes avg.
- 125°C Junction temperature
- Reverse energy tested
- Low forward voltage

Electrical Characteristics

| | | |
|---|----------------------------|---|
| Average forward current per pkg | I _{F(AV)} 80 Amps | T _C = 107°C, Square wave, R _{θJC} = 0.5°C/W |
| Average forward current per leg | I _{F(AV)} 40 Amps | T _C = 107°C, Square wave, R _{θJC} = 1.0°C/W |
| Maximum surge current per leg | I _{FSM} 800 Amps | 8.3 ms, half sine, T _J = 125°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} 0.32 Volts | I _{FM} = 40A: T _J = 125°C |
| Max peak forward voltage per leg | V _{FM} 0.44 Volts | I _{FM} = 40A: T _J = 25°C * |
| Max peak reverse current per leg | I _{RM} 1.0 Amp | V _{RRM} , T _J = 125°C* |
| Max peak reverse current per leg | I _{RM} 10 mA | V _{RRM} , T _J = 25°C |
| Typical junction capacitance per leg | C _J 4000 pF | V _R = 5.0V, T _C = 25°C |

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

Thermal and Mechanical Characteristics

| | | |
|--------------------------------------|------------------|-------------------------------|
| Storage temp range | T _{STG} | -55°C to 125°C |
| Operating junction temp range | T _J | -55°C to 125°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} | 0.3°C/W Case to sink |
| Mounting Base Torque | | 10 inch pounds maximum |
| Weight | | 0.3 ounce (8.4 grams) typical |

FST8115, FST8120

Figure 1
Typical Forward Characteristics - Per Leg

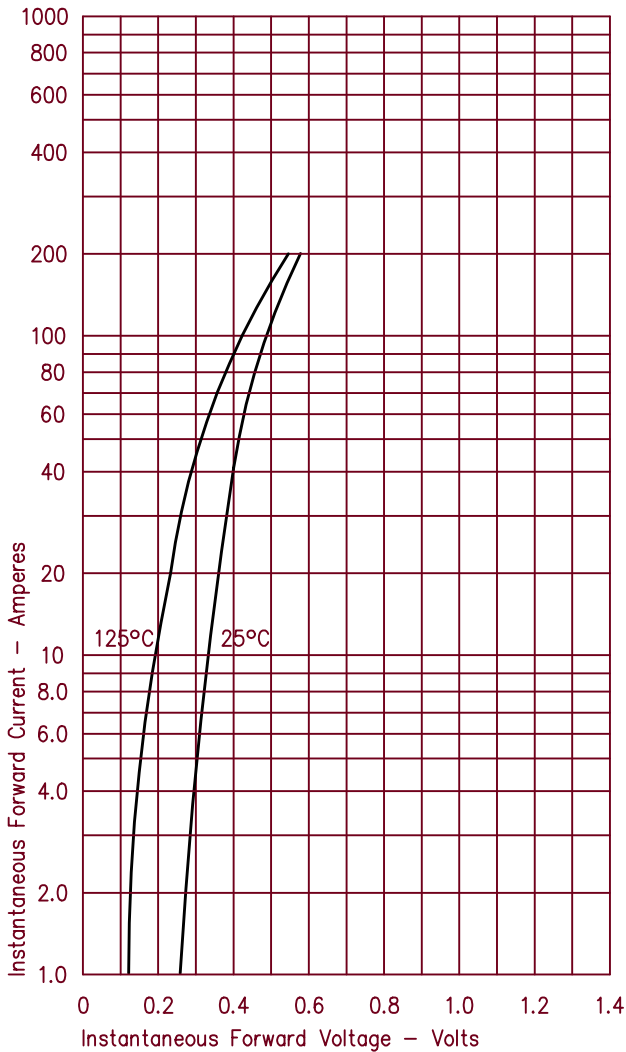


Figure 3
Typical Junction Capacitance - Per Leg

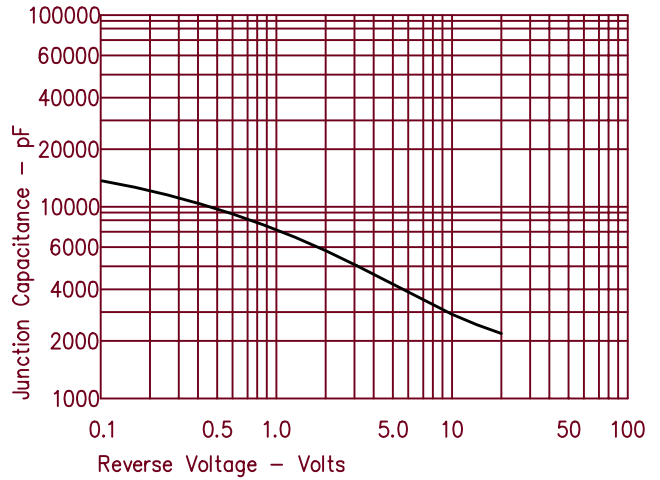


Figure 4
Forward Current Derating - Per Leg

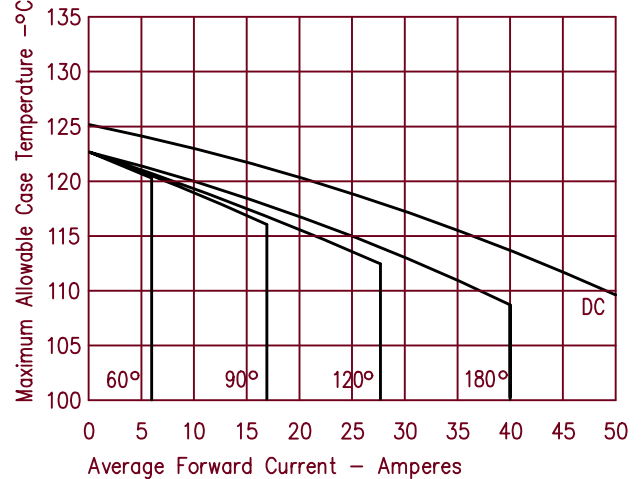


Figure 2
Typical Reverse Characteristics - Per Leg

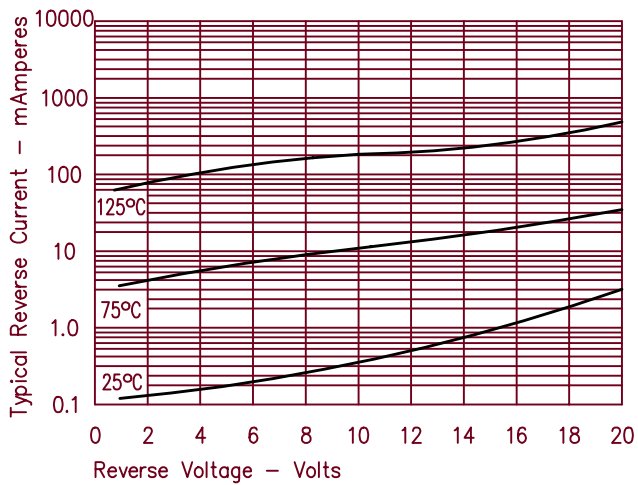
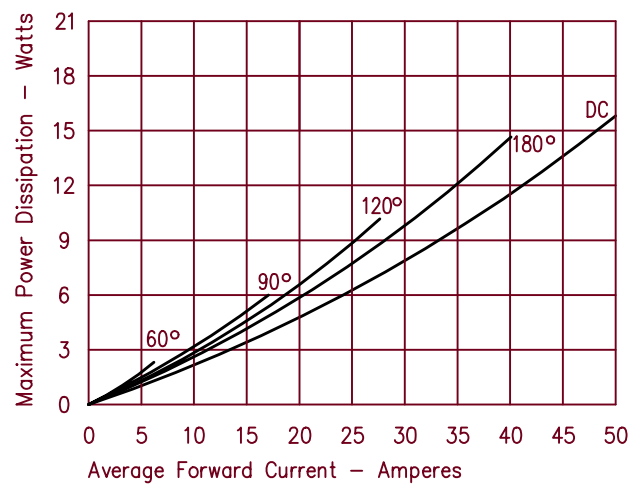


Figure 5
Maximum Forward Power Dissipation - Per Leg



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