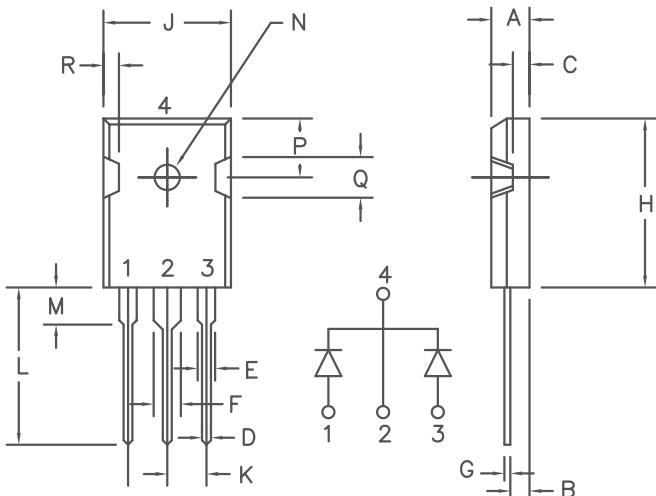


60 Amp Schottky Rectifier

FST65100



Similar to TO-247AD

| | Dim. Inches | | Millimeter | | |
|---|-------------|---------|------------|---------|-------|
| | Minimum | Maximum | Minimum | Maximum | Notes |
| A | .185 | .209 | 4.70 | 5.31 | |
| B | .087 | .102 | 2.21 | 2.59 | |
| C | .059 | .098 | 1.50 | 2.49 | |
| D | .040 | .055 | 1.02 | 1.40 | |
| E | .079 | .094 | 2.01 | 2.39 | |
| F | .118 | .133 | 3.00 | 3.38 | |
| G | .016 | .031 | .410 | 0.78 | |
| H | .819 | .883 | 20.80 | 22.4 | |
| J | .627 | .650 | 15.93 | 16.5 | |
| K | .215 | — | 5.46 | — | Typ. |
| L | .790 | .810 | 20.07 | 20.6 | |
| M | .157 | .180 | 3.99 | 4.57 | |
| N | .139 | .144 | 3.53 | 3.66 | Dia. |
| P | .255 | .300 | 6.48 | 7.62 | |
| Q | .170 | .210 | 4.32 | 5.33 | |
| R | .080 | .110 | 2.03 | 2.79 | |

Microsemi Catalog Number

Industry Part Number

Repetitive Peak Reverse Voltage

Transient Peak Reverse Voltage

FST65100

63CPQ100

100V

100V

- Schottky barrier rectifier
- Guard ring for reverse protection
- Low power loss
- 175°C Junction Temperature
- V_{RRM} 100 Volts

Electrical Characteristics

Average forward current per pkg.
Average forward current per leg
Maximum surge current
Max. repetitive reverse current
Max. peak forward voltage per leg
Typical peak forward voltage per leg
Typical peak reverse current per leg
Max. peak reverse current per leg
Typical junction capacitance per leg

I_{F(AV)} 60 Amps
I_{F(AV)} 30 Amps
I_{FSM} 600 Amps
I_{R(OV)} 2 Amps
V_{FM} .83 Volts
V_{FM} .65 Volts
I_{RM} 500 μ A
I_{RM} 250 μ A
C_J 840 pF

T_C = 158°C, square wave, R_{θJC} = 0.4°C/W
T_C = 158°C, square wave, R_{θJC} = 0.8°C/W
8.3ms, half sine, T_J = 175°C
f = 1KHZ, 25°C, 1us square wave
I_{FM} = 30A, T_J = 25°C*
I_{FM} = 30A, T_J = 125°C*
V_{RRM}, T_J = 125°C*
V_{RRM}, T_J = 25°C
VR = 5.0V, T_J = 25°C

*Pulse test: Pulse width 300 usec. Duty Cycle 2%

Thermal and Mechanical Characteristics

Storage temp range
Operating junction temp range
Max thermal resistance per leg
Max thermal resistance per pkg.
Mounting Torque
Weight

T_{STG}
T_J
R_{θJC}
R_{θJC}

-55°C to +175°C
-55°C to +175°C
0.8°C/W
0.4°C/W
5-10 inch pounds (#6 screw)
.22 ounces (6.36 grams) typical

FST65100

Figure 1
Typical Forward Characteristics – Per Leg

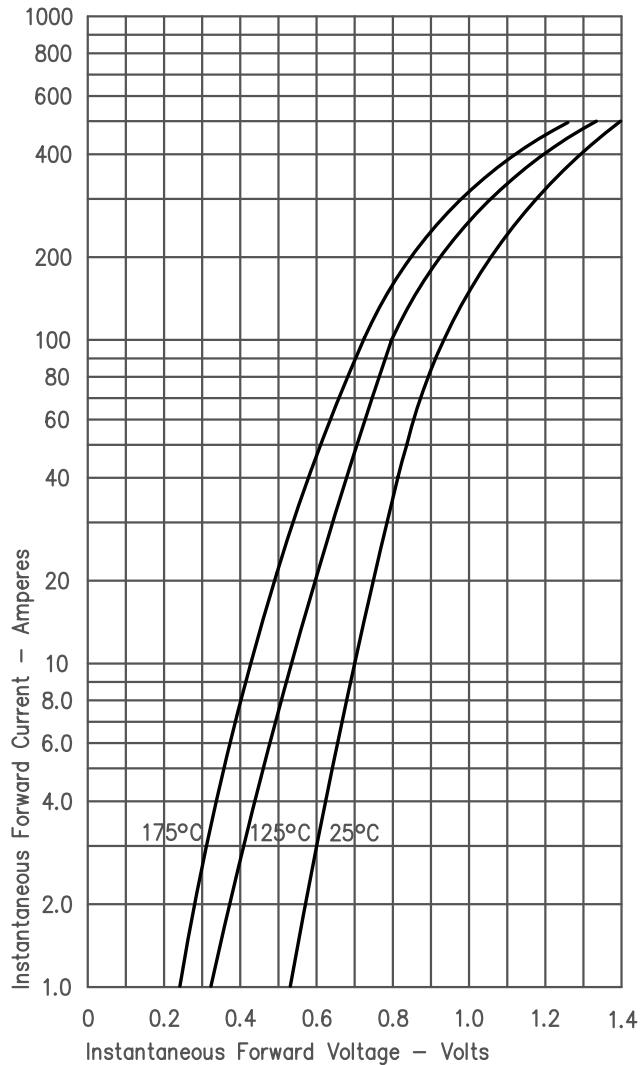


Figure 2
Typical Reverse Characteristics – Per Leg

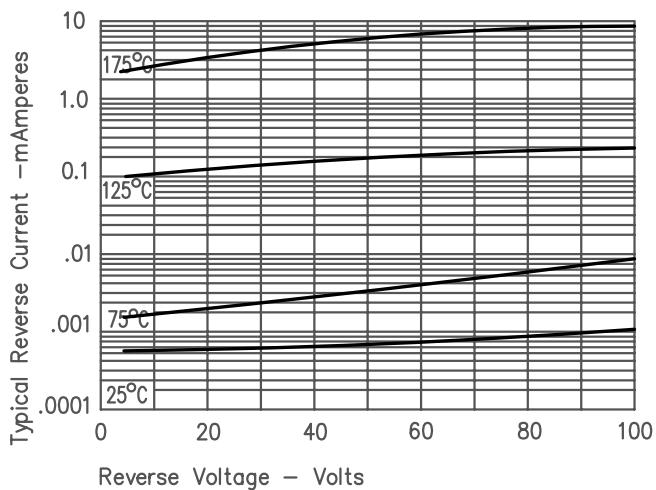


Figure 3
Typical Junction Capacitance – Per Leg

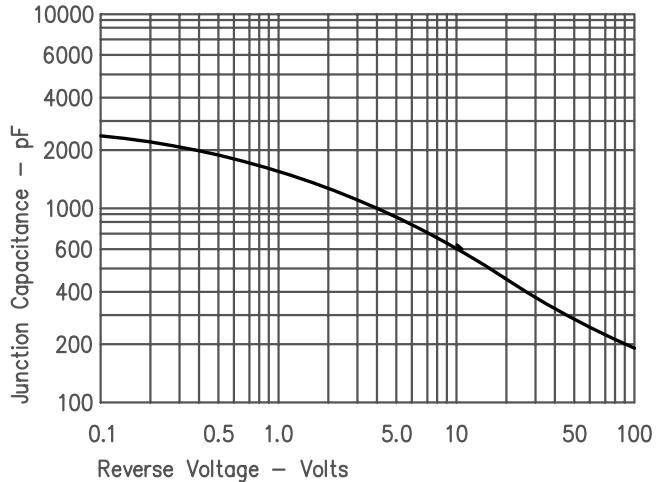


Figure 4
Forward Current Derating – Per Leg

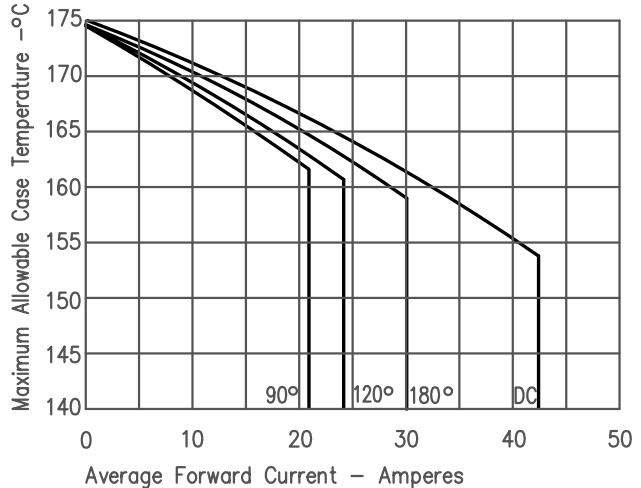


Figure 5
Maximum Forward Power Dissipation – Per Leg

