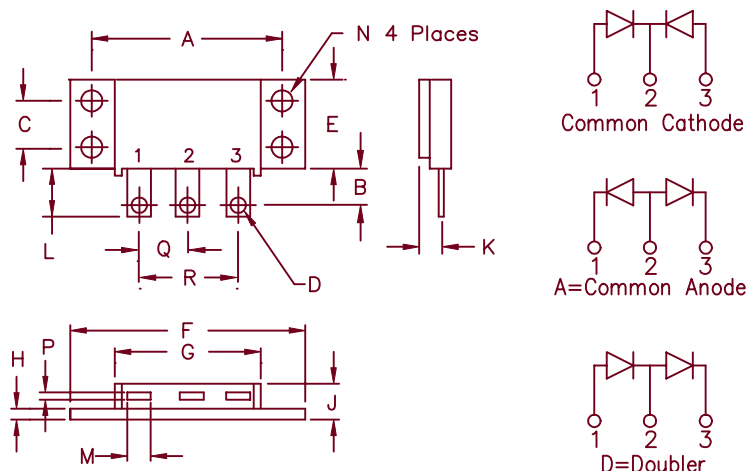


Low Vf Schottky Powermod FST19035 — FST19050



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	

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Microsemi Catalog Number	Working Peak Peak Reverse Voltage	Repetitive Peak Peak Reverse Voltage
FST19035*	35V	35V
FST19040*	40V	40V
FST19045*	45V	45V
FST19050*	50V	50V

*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 50 Volts

Electrical Characteristics

Average Forward Current per pkg.
Average Forward Current per leg
Maximum Surge Current per leg
Max. Peak Forward Voltage per leg
Max. Peak Forward Voltage per leg
Max. Peak Reverse Current per leg
Max. Peak Reverse Current per leg
Typical Junction Capacitance per leg

$I_F(AV)$ 200 Amps
 $I_F(AV)$ 100 Amps
 I_{FSM} 1500 Amps
 V_{FM} .55 Volts
 V_{FM} .70 Volts
 I_{RM} 100 mA
 I_{RM} 4 mA
 C_J 4800 pF

$T_C = 136^\circ\text{C}$, Square wave, $R_{\theta JC} = 0.35^\circ\text{C/W}$
 $T_C = 136^\circ\text{C}$, Square wave, $R_{\theta JC} = 0.7^\circ\text{C/W}$
8.3ms, half sine, $T_J = 175^\circ\text{C}$
 $I_{FM} = 100A, T_J = 175^\circ\text{C}^*$
 $I_{FM} = 100A, T_J = 25^\circ\text{C}^*$
 $V_{RRM}, T_J = 125^\circ\text{C}^*$
 $V_{RRM}, T_J = 25^\circ\text{C}$
 $V_R = 5.0V, T_J = 25^\circ\text{C}$

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

Thermal and Mechanical Characteristics

Storage temp range
Operating junction temp range
Max thermal resistance per leg
Max thermal resistance per pkg.
Typical thermal resistance (greased)
Mounting Torque
Weight

T_{STG}
 T_J
 $R_{\theta JC}$
 $R_{\theta JC}$
 $R_{\theta JC}$

-55°C to 175°C
 -55°C to 175°C
 0.7°C/W Junction to case
 0.35°C/W
 0.1°C/W Case to sink
15–20 inch pounds
2.3 ounces (58.5 grams) typical

FST19035 — FST19050

Figure 1
Typical Forward Characteristics — Per Leg

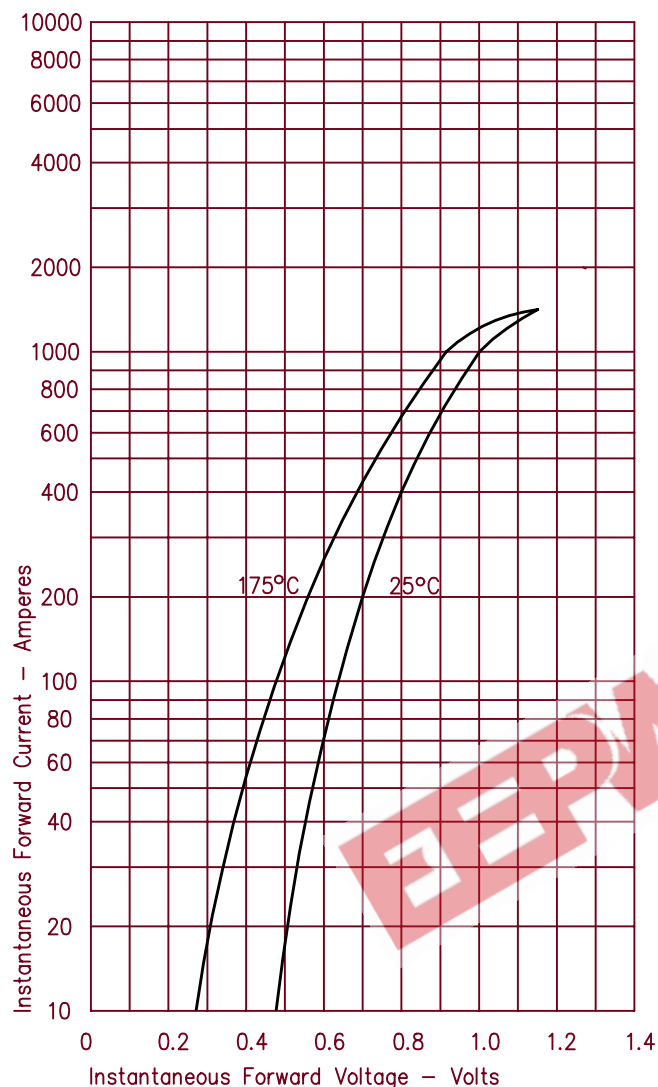


Figure 3
Typical Junction Capacitance — Per Leg

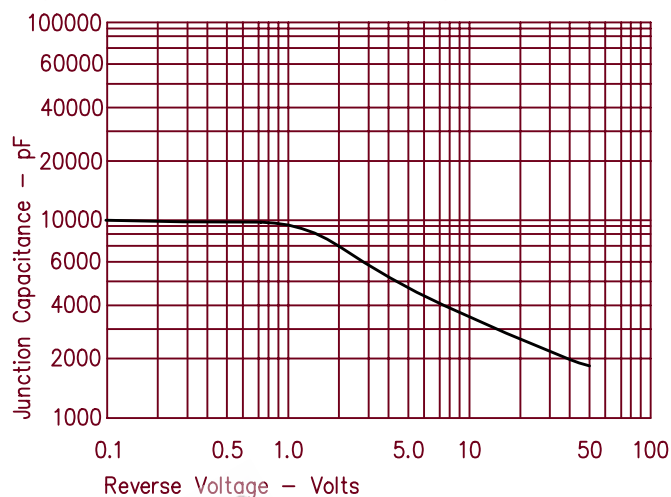


Figure 4
Forward Current Derating — Per Leg

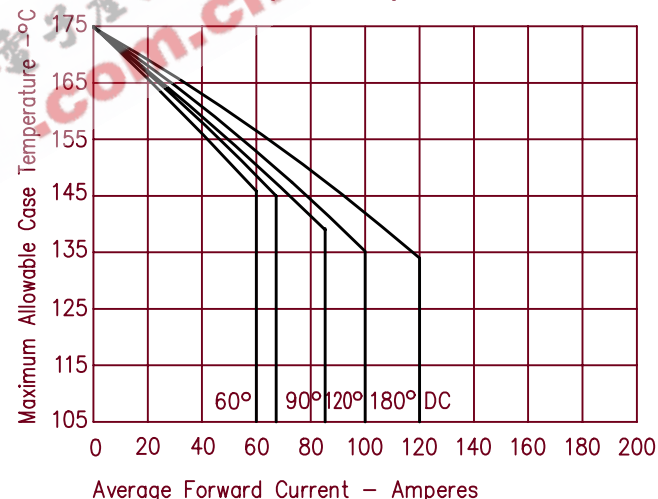


Figure 2
Typical Reverse Characteristics — Per Leg

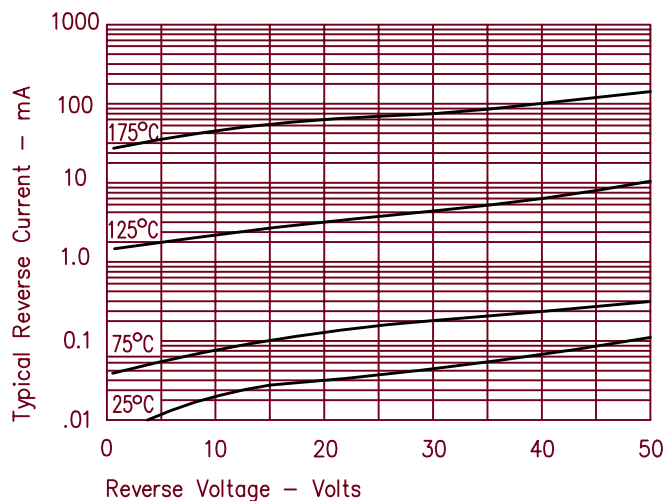


Figure 5
Maximum Forward Power Dissipation — Per Leg

