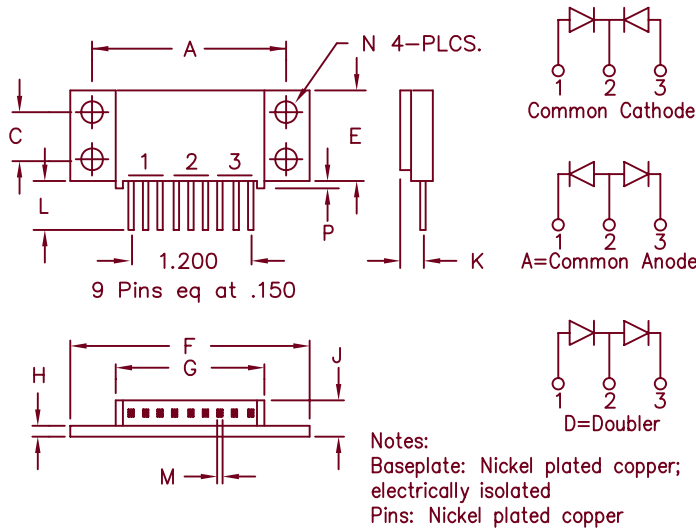


Schottky Powermod FST6080 — FST60100



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	6.60to	Lead ϕ
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	

Microsemi Catalog Number	Working Peak Reverse Voltage	Repetitive Peak Reverse Voltage
FST6080*	80V	80V
FST6090*	90V	90V
FST60100*	100V	100V

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

- Schottky barrier rectifier
- Guard ring for reverse protection
- V_{RRM} - 80 to 100 Volts
- High surge capacity
- Reverse energy tested
- Electrically isolated baseplate

Electrical Characteristics

Average forward current per pkg	$I_{F(AV)}$ 120 Amps	$T_C = 130^\circ\text{C}$, Square wave, $R_{\theta JC} = 0.6^\circ\text{C/W}$
Average forward current per leg	$I_{F(AV)}$ 60 Amps	$T_C = 130^\circ\text{C}$, Square wave, $R_{\theta JC} = 1.0^\circ\text{C/W}$
Maximum surge current per leg	I_{FSM} 1200 Amps	8.3 ms, half sine $T_J = 175^\circ\text{C}$
Max repetitive peak reverse current per leg	$I_{R(OV)}$ 2 Amps	$f = 1\text{ KHz}$, 25°C , 1 μsec Square wave
Max peak forward voltage per leg	V _{FM} .68 Volts	I _{FM} = 60A: $T_J = 175^\circ\text{C}$ *
Max peak forward voltage per leg	V _{FM} .86 Volts	I _{FM} = 60A: $T_J = 25^\circ\text{C}$ *
Max peak reverse current per leg	I _{RM} 30 mA	V _{RRM} , $T_J = 125^\circ\text{C}$ *
Max peak reverse current per leg	I _{RM} 2 mA	V _{RRM} , $T_J = 25^\circ\text{C}$
Typical junction capacitance per leg	C _J 1500 pF	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	T _{STG}	-55°C to 175°C
Operating junction temp range	T _J	-55°C to 175°C
Maximum thermal resistance per leg	R _{θJC}	1.0°C/W Junction to case
Maximum thermal resistance per pkg	R _{θJC}	0.6°C/W Junction to case
Typical thermal resistance (greased)	R _{θCS}	0.1°C/W Case to sink
Mounting torque		15 - 20 inch pounds maximum
Weight		2.5 ounces (71 grams) typical



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05-23-07 Rev. 3

FST6080 — FST60100

Figure 1
Typical Forward Characteristics — Per Leg

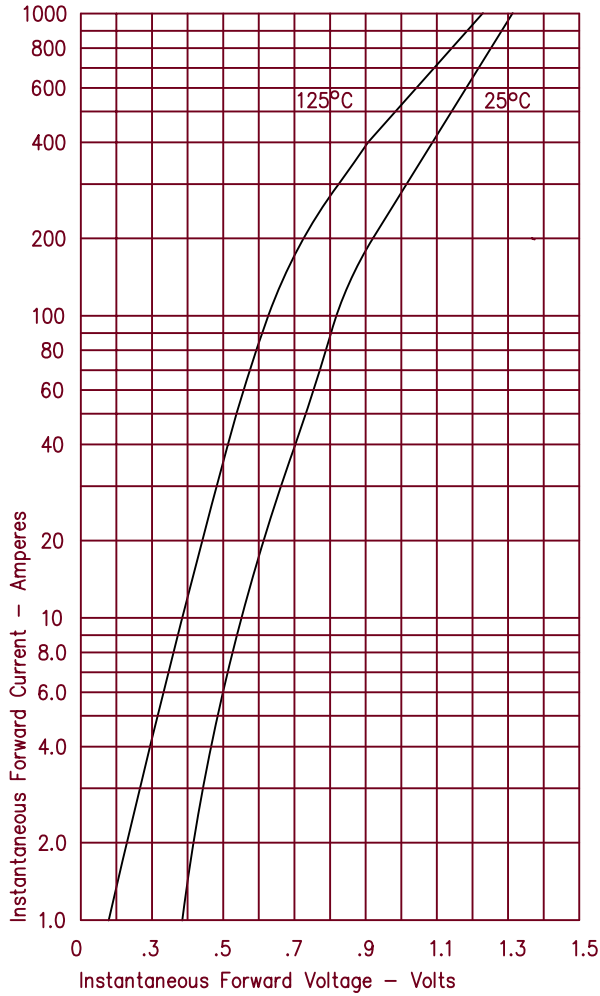


Figure 3
Typical Junction Capacitance — Per Leg

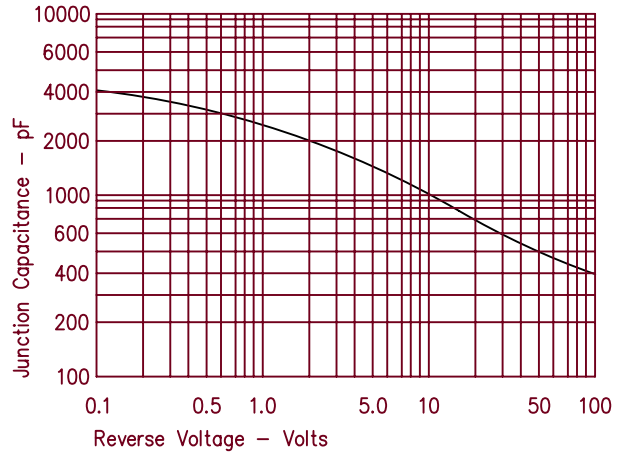


Figure 4
Forward Current Derating — Per Leg

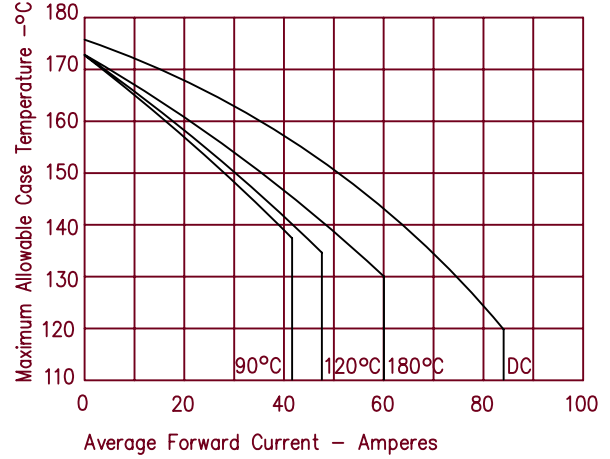


Figure 2
Typical Reverse Characteristics — Per Leg

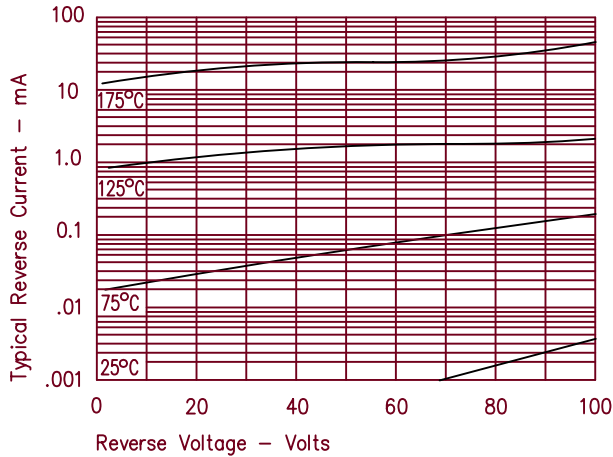


Figure 5
Maximum Forward Power Dissipation — Per Leg

