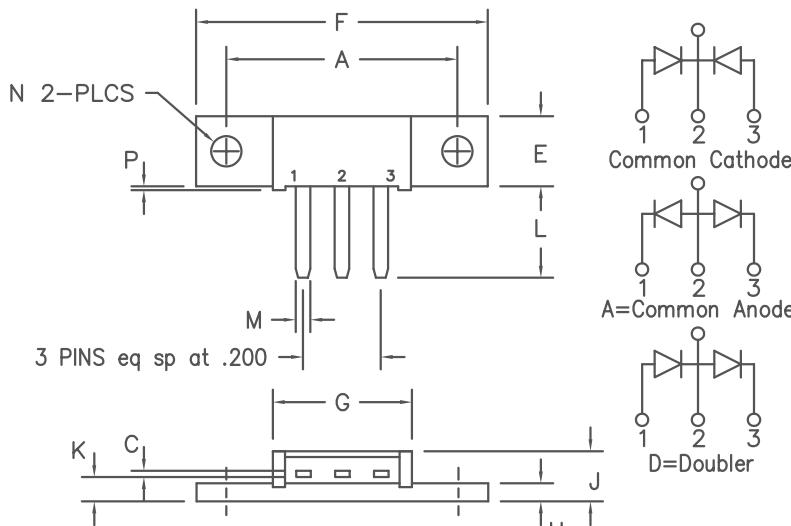


Schottky MiniMod

FST8080 – FST80100



Dim.	Inches		Millimeter		
	Minimum	Maximum	Minimum	Maximum	Notes
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
FST8080*	83CNQ080, A	80V	80V
FST8090*		90V	90V
FST80100*	83CNQ100, A	100V	100V

- Schottky Barrier Rectifier
- Guard ring protection
- 2X40 Amperes avg.
- 175°C junction temperature
- Reverse energy tested
- V_{RRM} 80 to 100 volts

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

Electrical Characteristics

Average forward current per pkg
 Average forward current per leg
 Maximum surge current per leg
 Max repetitive peak reverse 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

|F(AV) 80 Amps
 |F(AV) 40 Amps
 |FSM 800 Amps
 |R(OV) 2 Amps
 |VFM 0.62 Volts
 |VFM 0.82 Volts
 |RM 50 mA
 |RM 2 mA
 C_J 1450 pF

T_C = 143°C, square wave, R_{OJC} = 0.5°C/W
 T_C = 143°C, square wave, R_{OJC} = 1.0°C/W
 8.3 ms, half sine, T_J = 175°C
 f = 1 KHZ, 25°C, 1 usec square wave
 | FM = 40A: T_J = 175°C*
 | FM = 40A: T_J = 25°C*
 | V_{RRM}, T_J = 125°C*
 | V_{RRM}, T_J = 25°C
 V_R = 5.0V, T_C = 25°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)
 Mount base torque
 Weight

T _{STG}	-55°C to 175°C
T _J	-55°C to 175°C
R _{OJC}	1.0°C/W Junction to case
R _{OJC}	0.5°C/W Junction to case
R _{OCS}	0.3°C/W Case to sink
	10 inch pounds maximum
	0.3 ounce (8.4 grams) typical

FST8080 – FST80100

Figure 1
Typical Forward Characteristics – Per Leg

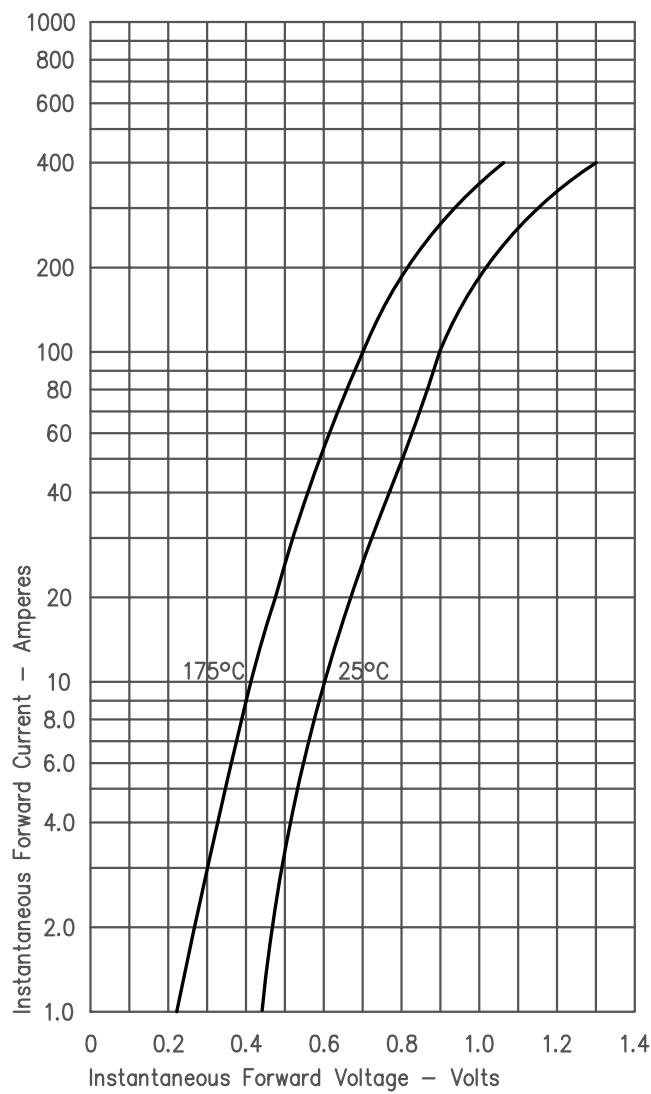


Figure 2
Typical Reverse Characteristics – Per Leg

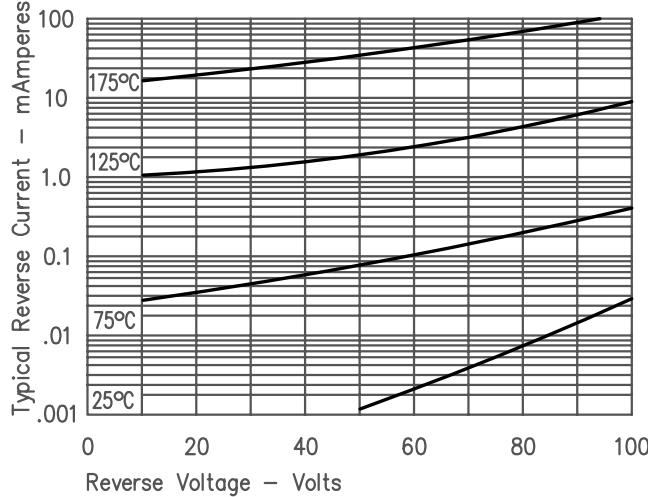


Figure 3
Typical Junction Capacitance – Per Leg

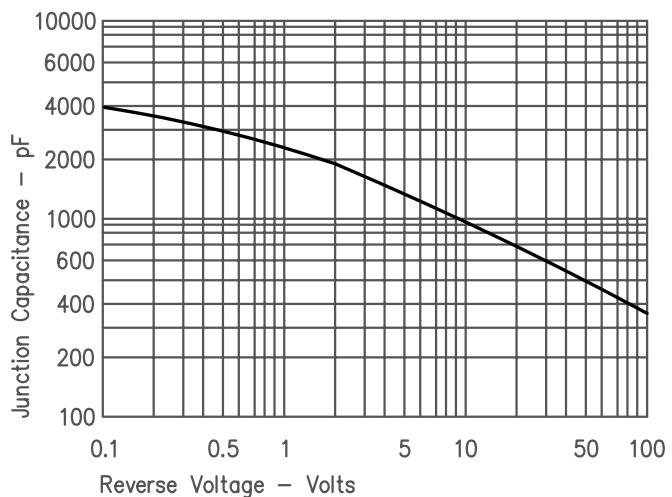


Figure 4
Forward Current Derating – Per Leg

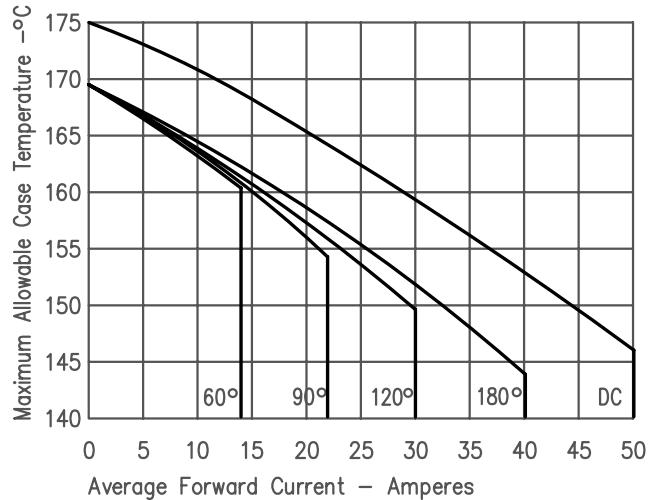


Figure 5
Maximum Forward Power Dissipation – Per Leg

