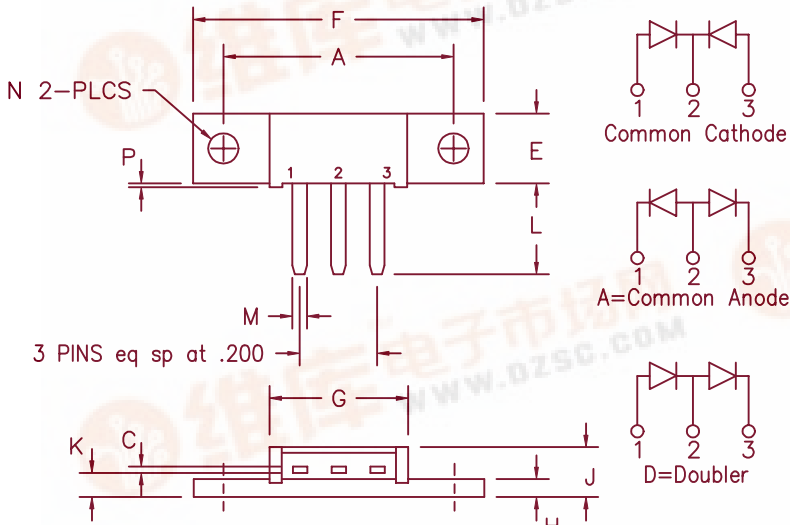


FST8080 — FST80100



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	Working Peak Reverse Voltage	Repetitive Peak Reverse Voltage
FST8080*	80V	80V
FST8090*	90V	90V
FST80100*	100V	100V

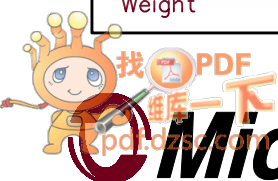
*Add the Suffix A for Common Anode, D for Doubler

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

Electrical Characteristics		
Average forward current per pkg	I _{F(AV)} 80 Amps	T _C = 143°C, square wave, R _{θJC} = 0.5°C/W
Average forward current per leg	I _{F(AV)} 40 Amps	T _C = 143°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 = 175°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} 0.62 Volts	I _{FM} = 40A: T _J = 175°C*
Max peak forward voltage per leg	V _{FM} 0.82 Volts	I _{FM} = 40A: T _J = 25°C*
Max peak reverse current per leg	I _{RM} 50 mA	V _R = 5.0V, T _C = 25°C
Max peak reverse current per leg	I _{RM} 2 mA	V _R = 5.0V, T _C = 25°C
Typical junction capacitance per leg	C _J 1450 pF	

*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
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
Mount base torque		10 inch pounds maximum
Weight		0.3 ounce (8.4 grams) typical



FST8080 — FST80100

Figure 1
Typical Forward Characteristics — Per Leg

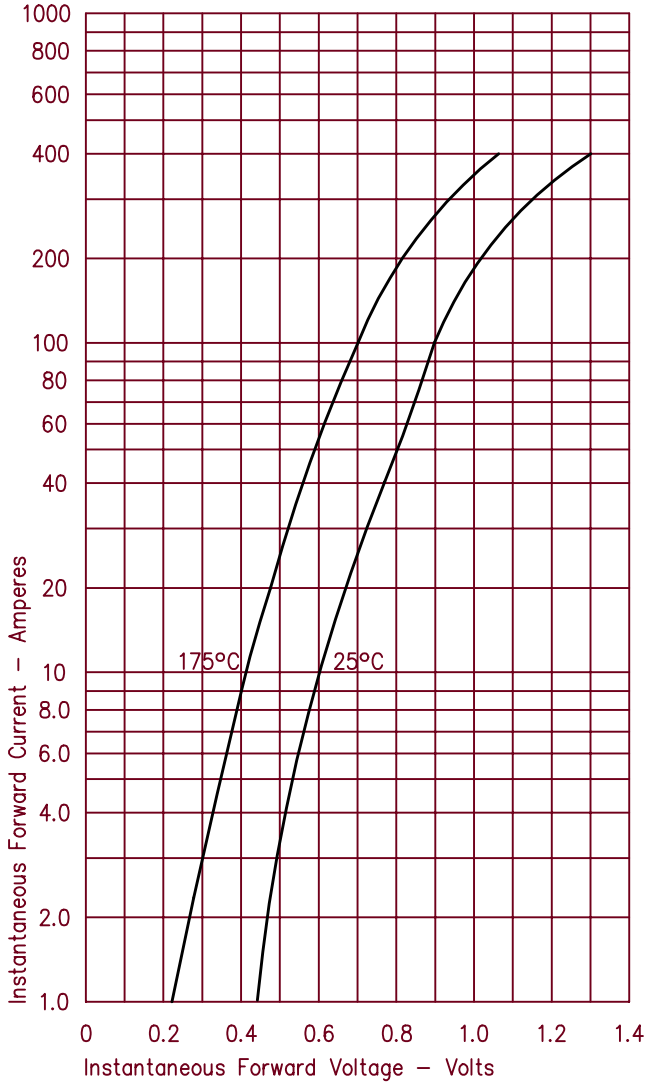


Figure 3
Typical Junction Capacitance — Per Leg

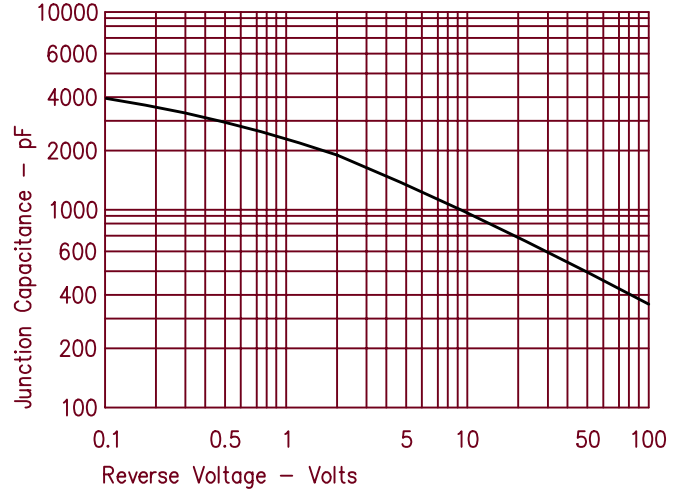


Figure 4
Forward Current Derating — Per Leg

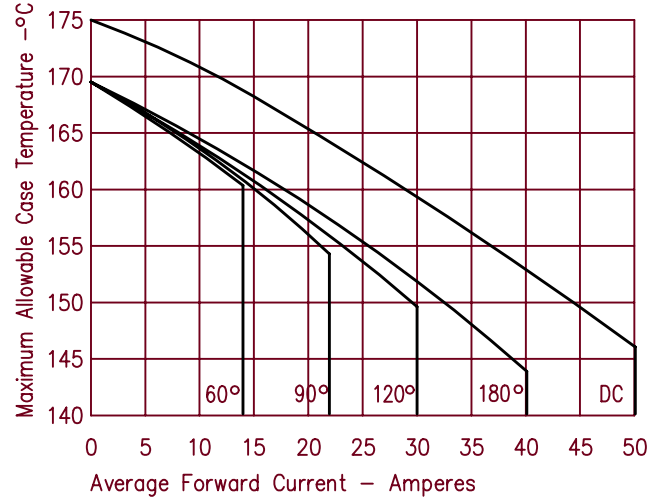


Figure 2
Typical Reverse Characteristics — Per Leg

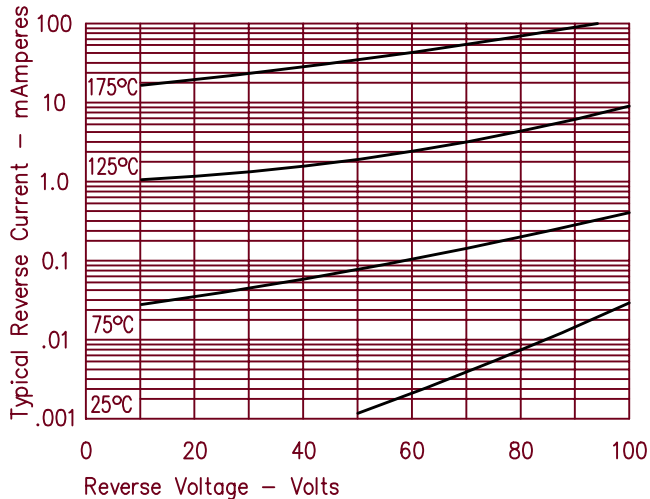


Figure 5
Maximum Forward Power Dissipation — Per Leg

