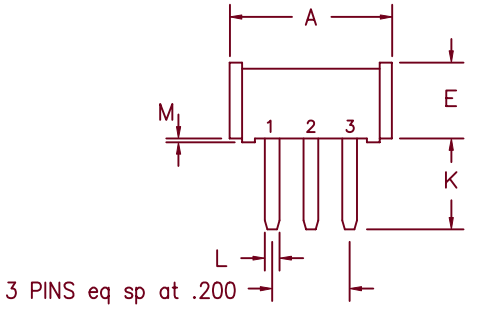
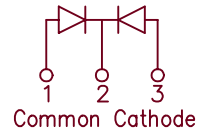
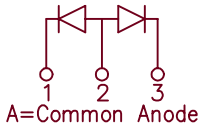
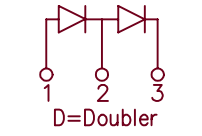
Schottky MiniMod

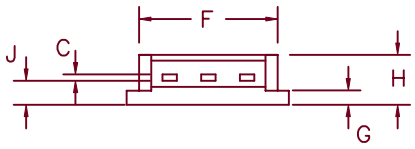
FST8230SM











Dim.	Inches		Millimeter		
	Minimum	Maximum	Minimum	Maximum	Notes
A	.765	.790	19.43	20.07	
C	.027	.037	0.69	0.94	
E	.340	.350	8.64	8.89	
F	.650	.670	16.51	17.02	
G	.065	.075	1.65	1.91	
H	.215	.235	5.46	5.97	
J	.110	.125	2.79	3.18	
K	.460	.485	11.68	12.32	
L	.065	.085	1.65	2.16	
M	.030	.040	0.76	1.02	

NOTES:
1. Baseplate Common with Pin 2
2. Lead Forming available. Consult Factory

Microsemi Catalog Number	Working Peak Reverse Voltage	Repetitive Peak Reverse Voltage
FST8230SM*	30V	30V

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

- Schottky Barrier Rectifier
- Guard Ring Protection
- 2X40 Amperes avg.
- 150°C Junction Temperature
- Reverse Energy Tested
- Low Forward Voltage

Electrical Characteristics

Average forward current per pkg	$I_{F(AV)}$ 80 Amps	T_C = 115°C, Square wave, $R_{\theta JC}$ = 0.5°C/W
Average forward current per leg	$I_{F(AV)}$ 40 Amps	T_C = 115°C, Square wave, $R_{\theta JC}$ = 1.0°C/W
Maximum surge current per leg	I_{FSM} 800 Amps	8.3 ms, half sine, T_J = 150°C
Max repetitive peak reverse current per leg	$I_{R(OV)}$ 2 Amps	f = 1 KHZ, 25°C, 1 usec square wave
Max peak forward voltage per leg	V_{FM} 0.42 Volts	I_{FM} = 40A: T_J = 150°C*
Max peak forward voltage per leg	V_{FM} 0.47 Volts	I_{FM} = 40A: T_J = 25°C*
Max peak reverse current per leg	I_{RM} 300 mA	V_{RRM}, T_J = 125°C*
Max peak reverse current per leg	I_{RM} 5 mA	V_{RRM}, T_J = 25°C
Typical reverse current per leg	I_{RM} 3 mA	V_{RRM}, T_J = 25°C
Typical junction capacitance per leg	C_J 2400 pF	V_R = 5.0V, T_C = 25°C

*Pulse test: Pulse width 300 usec, 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 150°C
Max thermal resistance per leg	$R_{\theta JC}$	1.0°C/W Junction to case
Max thermal resistance per pkg	$R_{\theta JC}$	0.5°C/W Junction to case
Typical thermal resistance (greased)	$R_{\theta CS}$	0.3°C/W Case to sink
Weight		0.3 ounce (8.4 grams) typical

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2-29-00 Rev. 1

FST8230SM

Figure 1
Typical Forward Characteristics – Per Leg

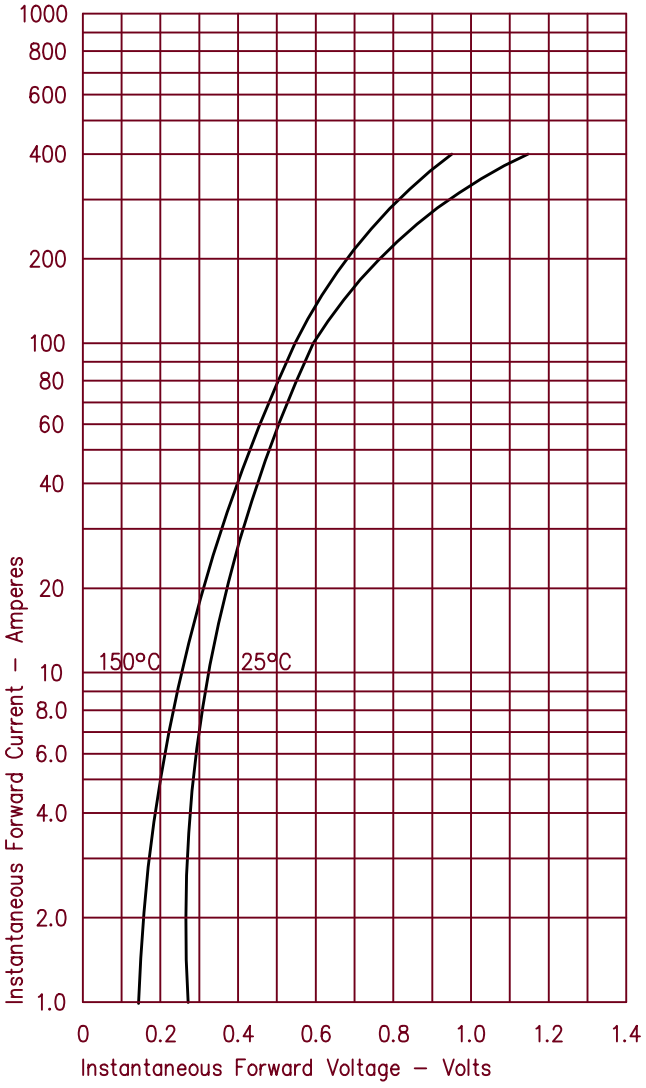

Figure 2
Typical Reverse Characteristics – Per Leg

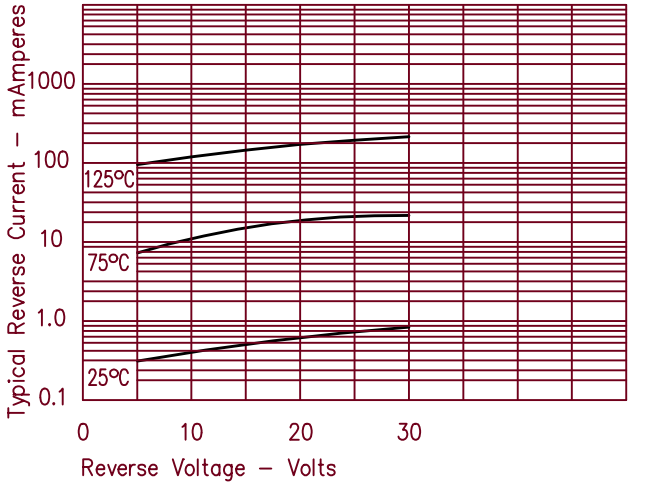

Figure 3
Typical Junction Capacitance – Per Leg

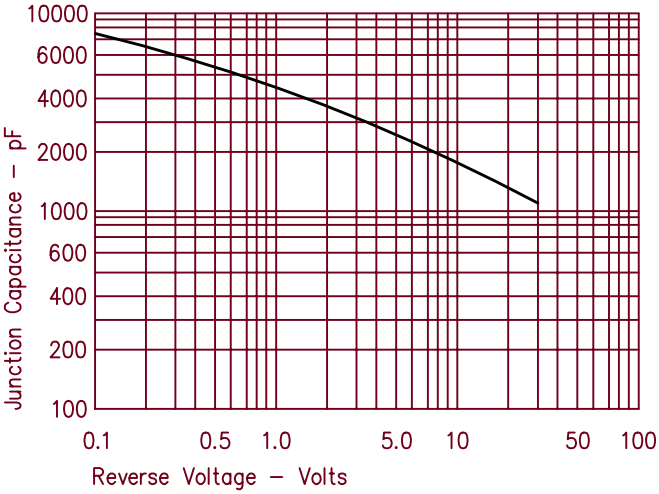

Figure 4
Forward Current Derating – Per Leg