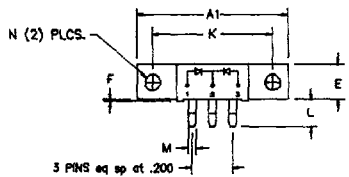
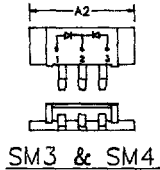


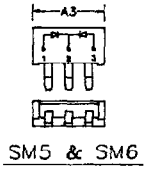
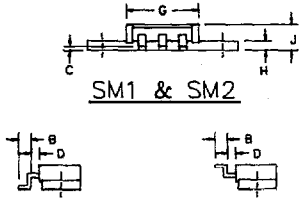
# Schottky Power Surface Mount FST71SM1-SM6 Series



SM1 & SM2



SM3 & SM4



SM5 & SM6

TYP. PIN CONFIGURATION  
FOR SM1, SM3, & SM5

TYP. PIN CONFIGURATION  
FOR SM2, SM4, & SM6

Dim.	Inches		Millimeter		Notes
	Minimum	Maximum	Minimum	Maximum	
A1	1.490	1.510	37.85	38.35	
A2	1.020	1.040	26.12	26.42	
A3	.695	.715	17.65	18.16	
B	.110	.120	2.79	3.04	
C	.027	.037	0.69	0.94	
D	.100	.110	2.54	2.79	
E	.350	.370	8.89	9.40	
F	.015	.025	0.38	0.64	
G	.695	.715	17.65	18.16	
H	.088	.098	2.24	2.49	
J	.240	.260	6.10	6.60	
K	1.180	1.195	29.97	30.35	
L	.230	.250	5.84	6.35	
M	.065	.085	1.65	2.16	
N	.151	.161	3.84	4.09	Dia.

Microsemi Catalog Number	Working Peak Reverse Voltage	Repetitive Peak Reverse Voltage
FST7130SM ①②	30V	30V
FST7135SM --	35V	35V
FST7140SM --	40V	40V
FST7145SM --	45V	45V

Note: ① Specify (1-6) to identify package desired  
② Specify C-Common Cathode, A-Common Anode, D-Doubler

- Schottky Barrier Rectifier
- Guard Ring for Reverse Protection
- VRRM 30 to 45 Volts
- Low Forward Voltage
- 2 X 35 Amperes Avg.
- 150°C Junction Temperature
- Reverse Energy Tested

Electrical Characteristics		
Average forward current per pkg	I <sub>F(AV)</sub> 70 Amps	T <sub>C</sub> = 90°C, Square wave, R <sub>θJC</sub> = 0.6°C/W
Average forward current per leg	I <sub>F(AV)</sub> 35 Amps	T <sub>C</sub> = 90°C, Square wave, R <sub>θJC</sub> = 1.2°C/W
Maximum surge current per leg	I <sub>FSM</sub> 800 Amps	8.3 ms, half sine, T <sub>J</sub> = 150°C
Max repetitive peak reverse current per leg	I <sub>R(OV)</sub> 2 Amps	f = 1 KHZ, 25°C, 1 usec square wave
Max peak forward voltage per leg	V <sub>FM</sub> 0.50 Volts	I <sub>FM</sub> = 30A; T <sub>J</sub> = 25°C*
Max peak forward voltage per leg	I <sub>RM</sub> 500 mA	V <sub>RRM</sub> , T <sub>C</sub> = 125°C*
Max peak reverse current per leg	I <sub>RM</sub> 5 mA	V <sub>RRM</sub> , T <sub>J</sub> = 25°C
Typical reverse current per leg	I <sub>RM</sub> 1 mA	V <sub>RRM</sub> , T <sub>J</sub> = 25°C
Typical junction capacitance	C <sub>J</sub> 1300 pF	V <sub>R</sub> = 5.0V, T <sub>C</sub> = 25°C

\*Pulse test: Pulse width 300 usec, Duty cycle 2%

Thermal and Mechanical Characteristics		
Storage temp range	T <sub>STG</sub>	-40°C to 150°C
Operating junction temp range	T <sub>J</sub>	-40°C to 150°C
Max thermal resistance per leg	R <sub>θJC</sub>	1.2°C/W Junction to case
per package	R <sub>θJC</sub>	0.6°C/W Junction to case
Typical thermal resistance per leg	R <sub>θJC</sub>	1.0°C/W Junction to case
Typical thermal resistance	R <sub>θCS</sub>	0.5°C/W Case to sink
Mounting Base Torque		10 inch pounds maximum
Weight	SM1-2	0.3 ounce (8.4 grams) typical
	SM3-4	0.24 ounce (6.7 grams) typical
	SM5-6	0.18 ounce (5.2 grams) typical



PH: 303-469-2161  
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# FST71SM1 - SM6

Figure 1  
Maximum Forward Characteristics - Per Leg

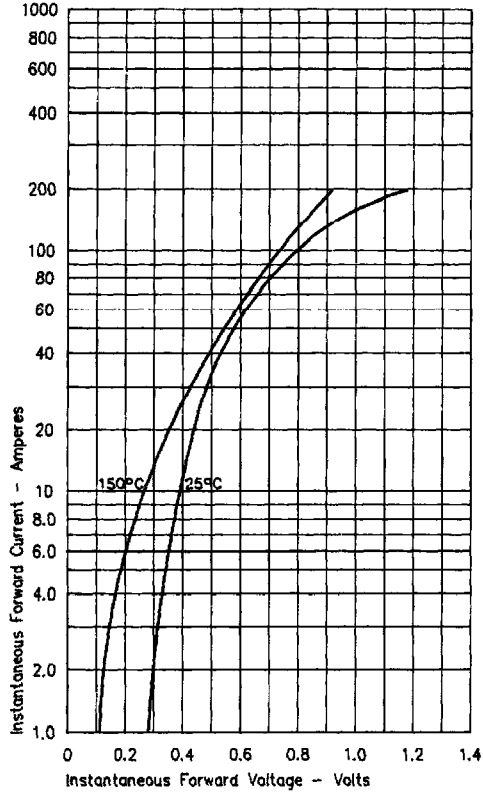


Figure 3  
Typical Junction Capacitance - Per Leg

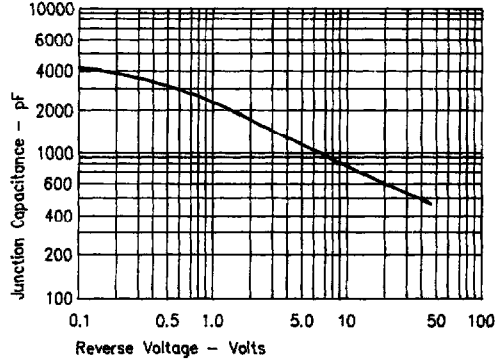


Figure 4  
Forward Current Derating - Per Leg

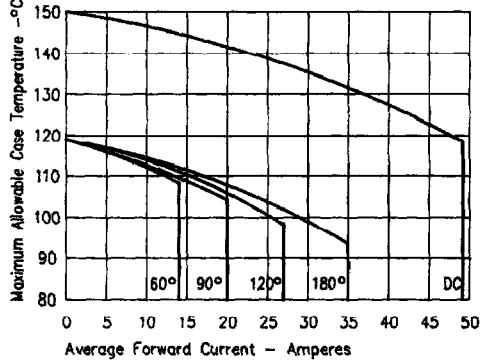


Figure 2  
Typical Reverse Characteristics - Per Leg

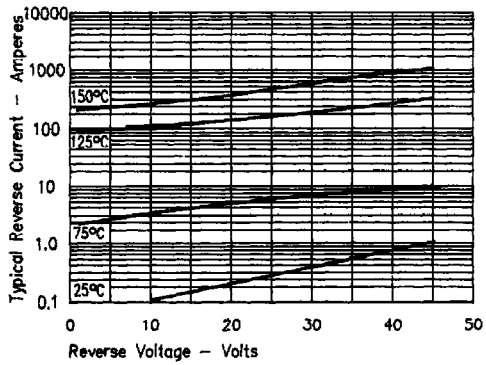


Figure 5  
Maximum Forward Power Dissipation - Per Leg

