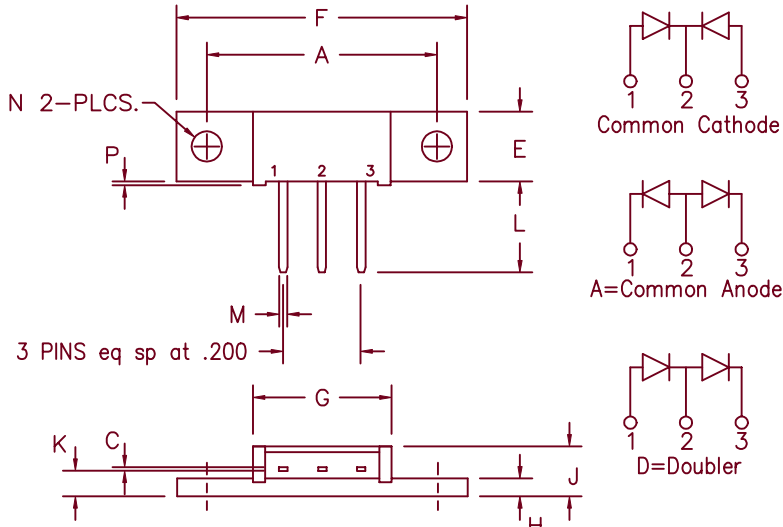


# Schottky MiniMod

## FST6130 — FST6145



Dim.	Inches		Millimeter		Notes
	Minimum	Maximum	Minimum	Maximum	
A	1.180	1.195	29.97	30.35	
C	.025	.035	0.64	0.89	
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	.034	.046	0.86	1.17	
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
FST6130*	30V	30V
FST6135*	35V	35V
FST6140*	40V	40V
FST6145*	45V	45V

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

- Schottky Barrier Rectifier
- Guard Ring Protection
- 2X30 Amperes avg.
- 150°C Junction Temperature
- Reverse Energy Tested
- Low Forward Voltage

### Electrical Characteristics

Average forward current per pkg	I <sub>F(AV)</sub> 60 Amps	T <sub>C</sub> = 115°C, Square wave, R <sub>θJC</sub> = 0.5°C/W
Average forward current per leg	I <sub>F(AV)</sub> 30 Amps	T <sub>C</sub> = 115°C, Square wave, R <sub>θJC</sub> = 1.0°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> 0.42 Volts	I <sub>FM</sub> = 30A: T <sub>J</sub> = 150°C*
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 reverse current per leg	I <sub>RM</sub> 500 mA	V <sub>RRM</sub> , T <sub>J</sub> = 125°C*
Max reverse current per leg	I <sub>RM</sub> 3.0 mA	V <sub>RRM</sub> , T <sub>J</sub> = 25°C
Typical junction capacitance per leg	C <sub>J</sub> 2100 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>	-55°C to 175°C
Operating junction temp range	T <sub>J</sub>	-55°C to 150°C
Max thermal resistance per leg	R <sub>θJC</sub>	1.0°C/W Junction to case
Max thermal resistance per pkg	R <sub>θJC</sub>	0.5°C/W Junction to case
Typical thermal resistance (greased)	R <sub>θCS</sub>	0.3°C/W Case to sink
Mounting Base Torque		10 inch pounds maximum
Weight		0.3 ounce (8.4 grams) typical

# FST6130 — FST6145

Figure 1  
Typical Forward Characteristics — Per Leg

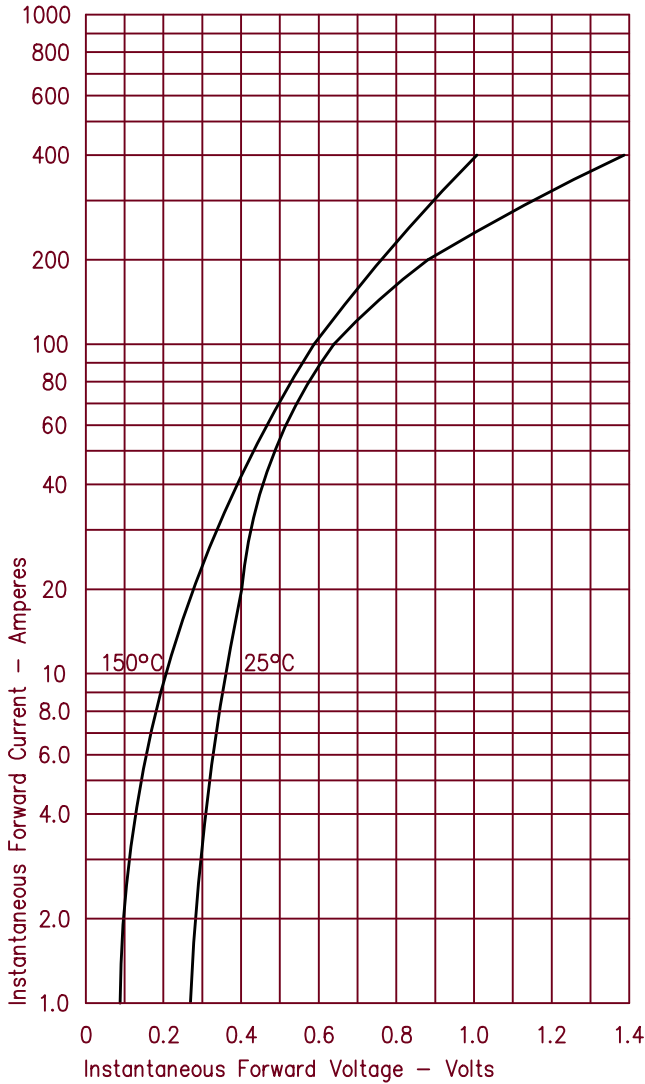


Figure 3  
Typical Junction Capacitance — Per Leg

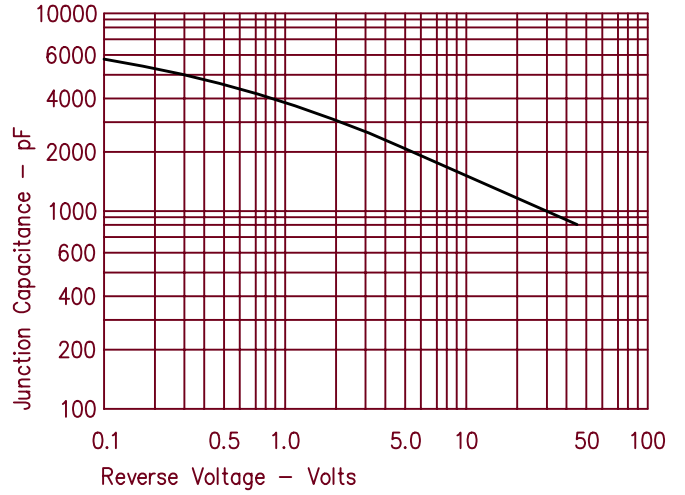


Figure 4  
Forward Current Derating — Per Leg

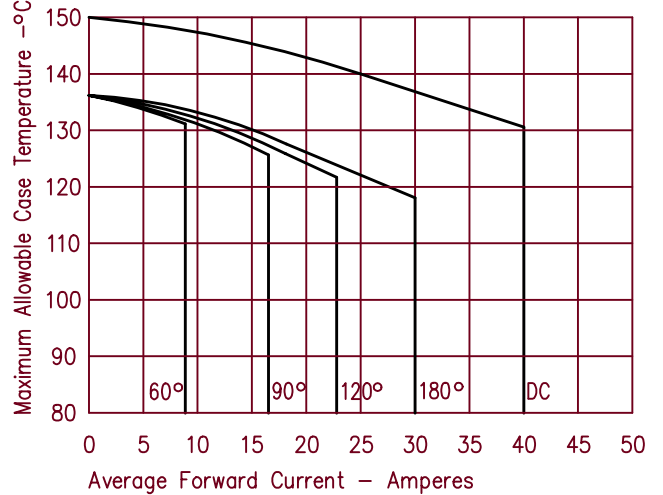


Figure 2  
Typical Reverse Characteristics — Per Leg

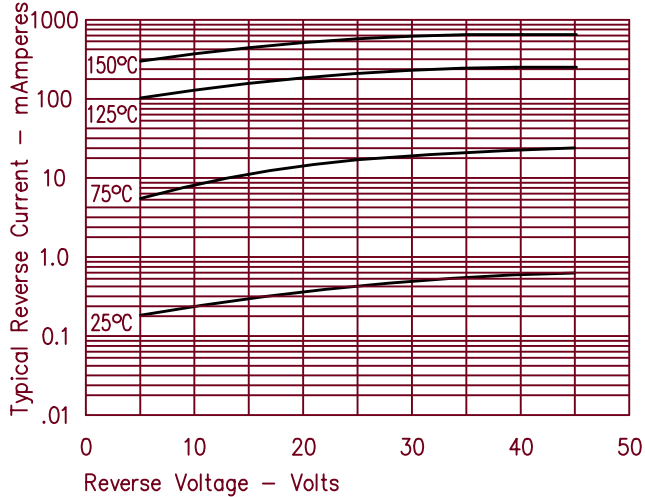


Figure 5  
Maximum Forward Power Dissipation — Per Leg

