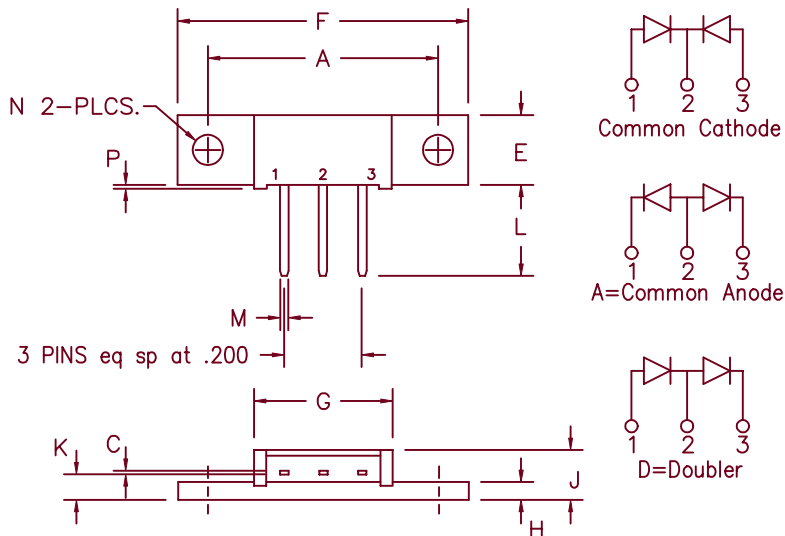


Schottky MiniMod

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	<ul style="list-style-type: none"> • Schottky Barrier Rectifier • Guard Ring Protection • 2X30 Amperes avg. • 150°C Junction Temperature • Reverse Energy Tested • Low Forward Voltage
FST6135*	35V	35V	
FST6140*	40V	40V	
FST6145*	45V	45V	

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

Electrical Characteristics

Average forward current per pkg	I _{F(AV)} 60 Amps	$T_C = 115^\circ\text{C}$, Square wave, $R_{\theta JC} = 0.5^\circ\text{C/W}$ $T_C = 115^\circ\text{C}$, Square wave, $R_{\theta JC} = 1.0^\circ\text{C/W}$ 8.3 ms, half sine, $T_J = 150^\circ\text{C}$ $f = 1 \text{ KHZ}$, 25°C , 1 usec square wave $I_{FM} = 30\text{A}$: $T_J = 150^\circ\text{C}^*$ $I_{FM} = 30\text{A}$: $T_J = 25^\circ\text{C}^*$ V_{RRM} , $T_J = 125^\circ\text{C}^*$ V_{RRM} , $T_J = 25^\circ\text{C}$ $V_R = 5.0\text{V}$, $T_C = 25^\circ\text{C}$
Average forward current per leg	I _{F(AV)} 30 Amps	
Maximum surge current per leg	I _{FSM} 800 Amps	
Max repetitive peak reverse current per leg	I _{R(OV)} 2 Amps	
Max peak forward voltage per leg	V _{FM} 0.42 Volts	
Max peak forward voltage per leg	V _{FM} 0.50 Volts	
Max peak reverse current per leg	I _{RM} 500 mA	
Max reverse current per leg	I _{RM} 3.0 mA	
Typical junction capacitance per leg	C _J 2100 pF	

*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 _{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
Mounting Base Torque		10 inch pounds maximum
Weight		0.3 ounce (8.4 grams) typical

FST6130 — FST6145

Figure 1
Typical Forward Characteristics — Per Leg

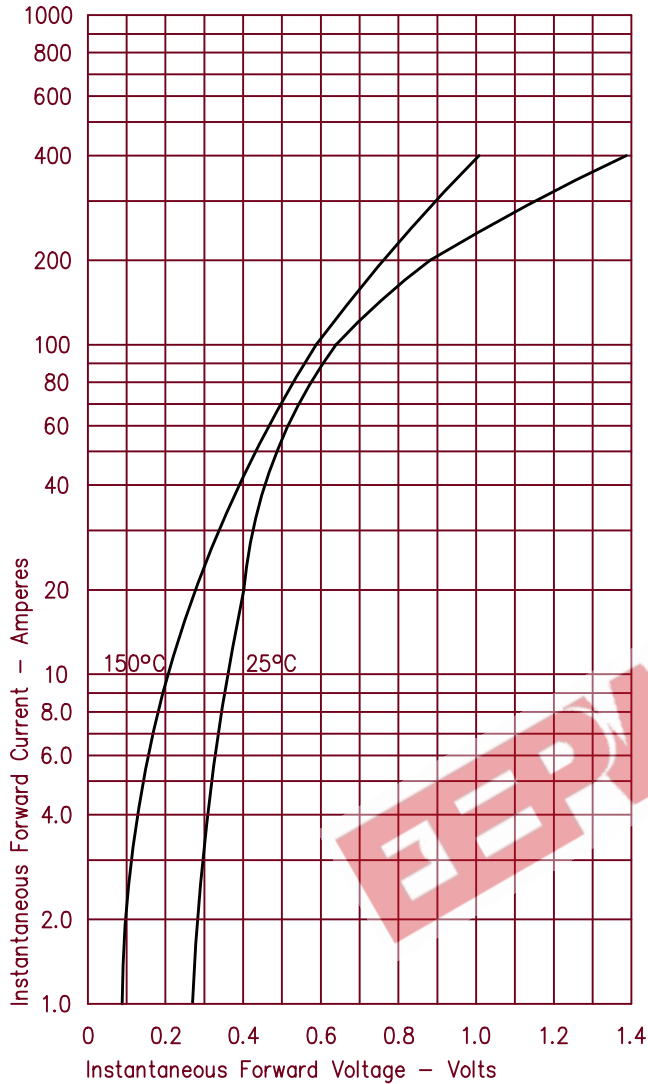


Figure 2
Typical Reverse Characteristics — Per Leg

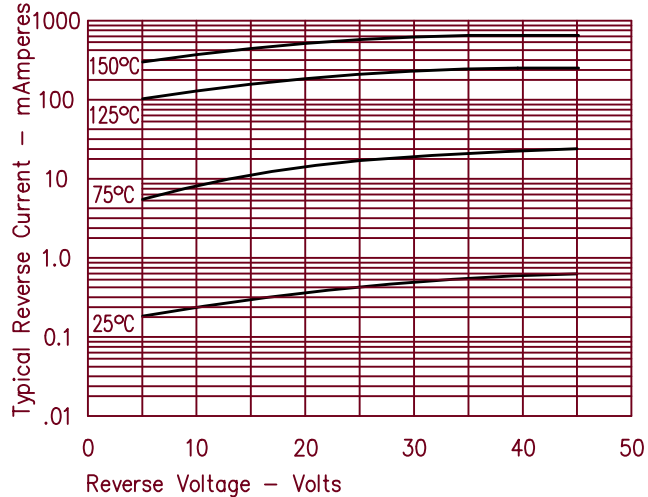


Figure 3
Typical Junction Capacitance — Per Leg

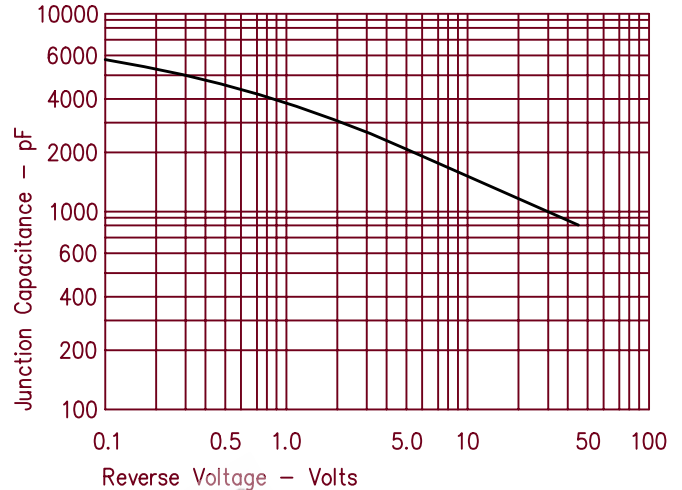


Figure 4
Forward Current Derating — Per Leg

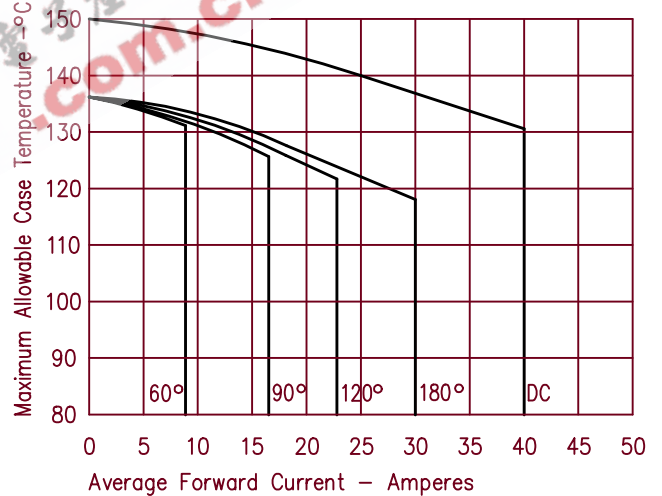


Figure 5
Maximum Forward Power Dissipation — Per Leg

