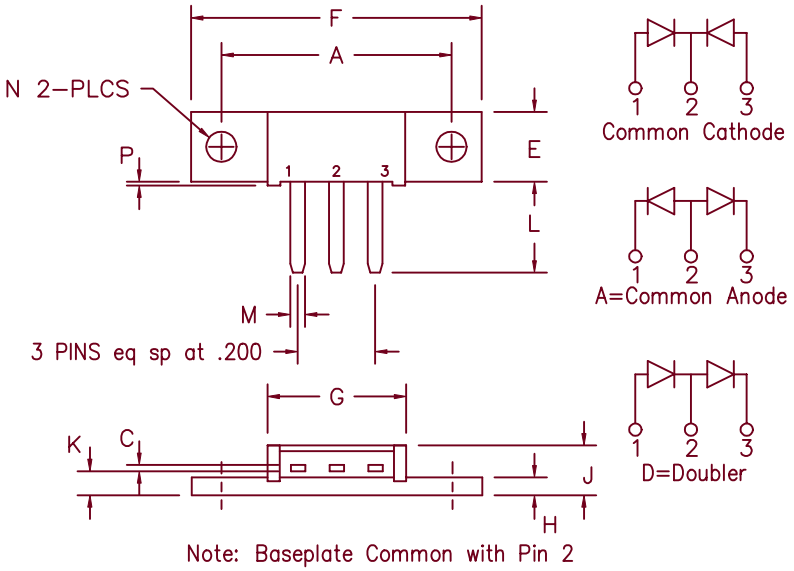
Schottky Or'ing Diode

FST6210 – FST6220



Note: Baseplate Common with Pin 2

Dim.	Inches		Millimeter		
	Minimum	Maximum	Minimum	Maximum	Notes
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	

Microsemi Catalog Number	Working Peak Reverse Voltage	Repetitive Peak Reverse Voltage
FST6210	10V	10V
FST6215	15V	15V
FST6220	20V	20V

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

- Schottky Barrier Rectifier
- Guard ring protection
- Low forward voltage
- 2X30 Amperes avg.
- 125°C Junction temperature
- Reverse energy tested

Electrical Characteristics

Average forward current per pkg	$I_{F(AV)}$ 60 Amps	T_C = 109°C, Square wave, $R_{\theta JC}$ = 0.6°C/W
Average forward current per leg	$I_{F(AV)}$ 30 Amps	T_C = 109°C, Square wave, $R_{\theta JC}$ = 1.2°C/W
Maximum surge current per leg	I_{FSM} 600 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 µsec square wave
Max peak forward voltage per leg	V_{FM} .31 Volts	I_{FM} = 30A: T_J = 125°C
Max peak forward voltage per leg	V_{FM} .43 Volts	I_{FM} = 30A: T_J = 25°C *
Max peak reverse current per leg	I_{RM} 500 mA	V_{RRM}, T_J = 125°C*
Max peak reverse current per leg	I_{RM} 5 mA	V_{RRM}, T_J = 25°C
Typical junction capacitance per leg	C_J 6000 pF	V_R = 5.0V, T_C = 25°C

*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 125°C
Max thermal resistance per leg	$R_{\theta JC}$	1.2°C/W Junction to case
Max thermal resistance per pkg	$R_{\theta JC}$	0.6°C/W Junction to case
Typical thermal resistance (greased)	$R_{\theta CS}$	0.3°C/W Case to sink
Mounting Base Torque		10 inch pounds maximum
Weight		0.3 ounce (8.4 grams) typical

COLORADO Microsemi
800 Hoyt Street
Broomfield, CO. 80020
PH: (303) 469–2161
FAX: (303) 466–3775
www.microsemi.com

2–15–00 Rev. IR

FST6210 – FST6220

Figure 1
Typical Forward Characteristics – Per Leg

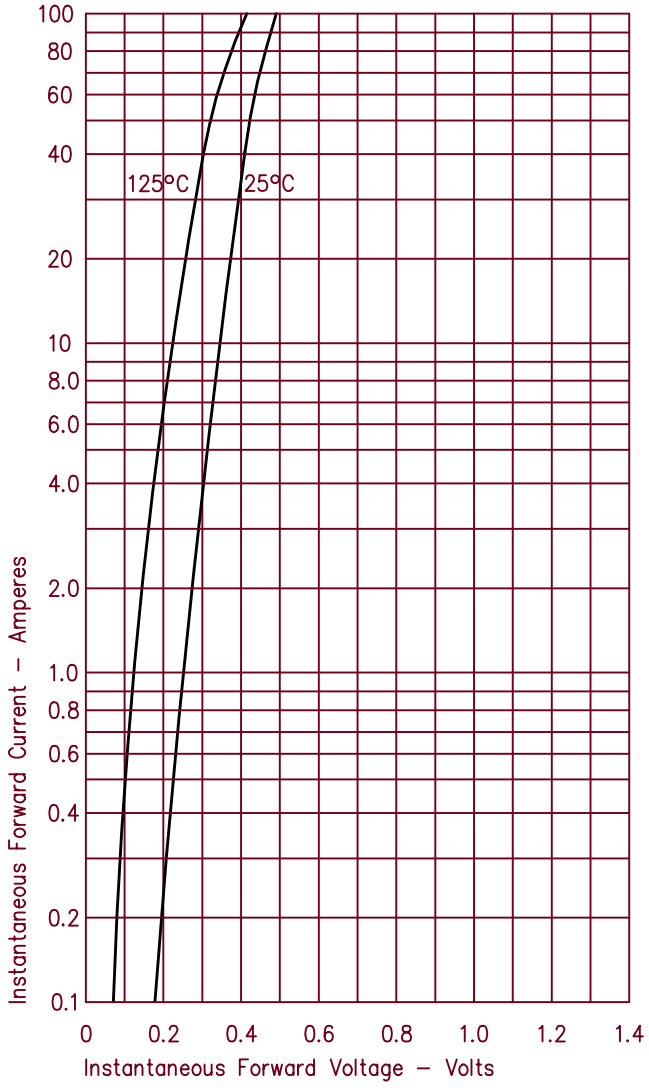


Figure 2
Typical Reverse Characteristics – Per Leg

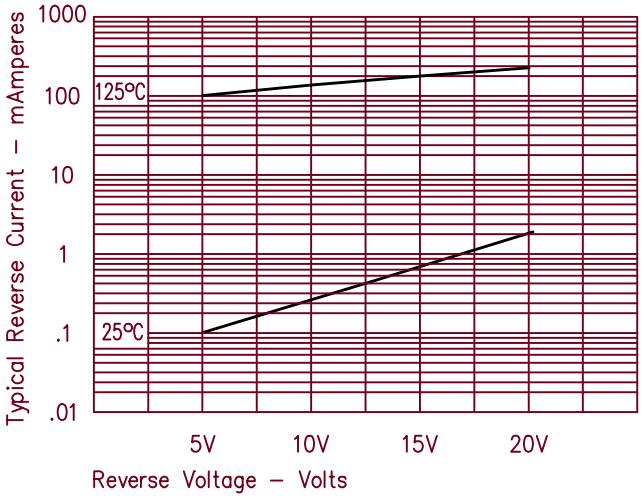


Figure 3
Typical Junction Capacitance – Per Leg

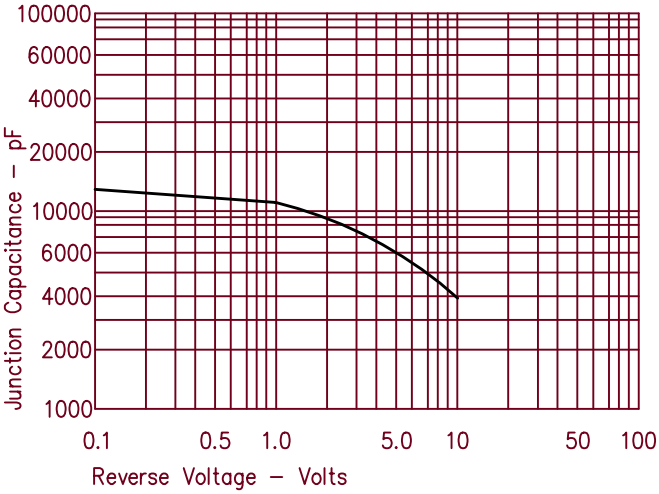


Figure 4
Forward Current Derating – Per Leg

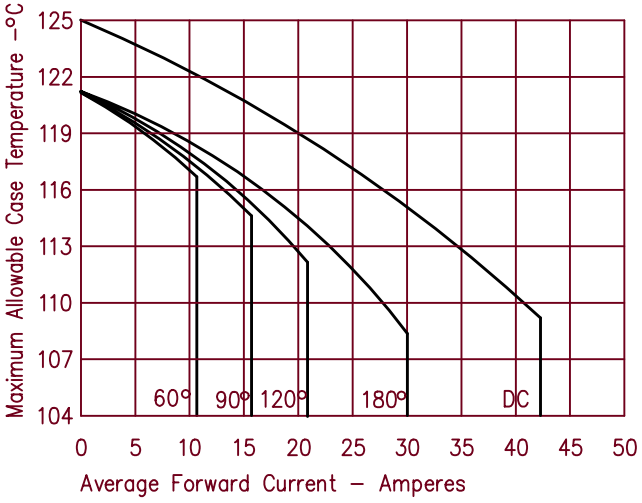
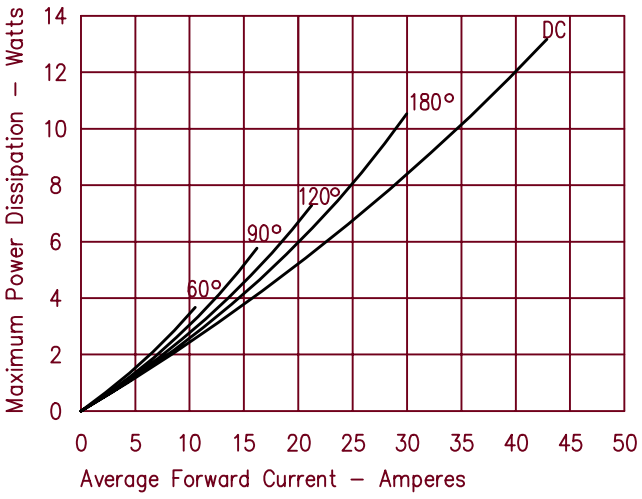


Figure 5
Maximum Forward Power Dissipation – Per Leg



2–15–00 Rev. IR