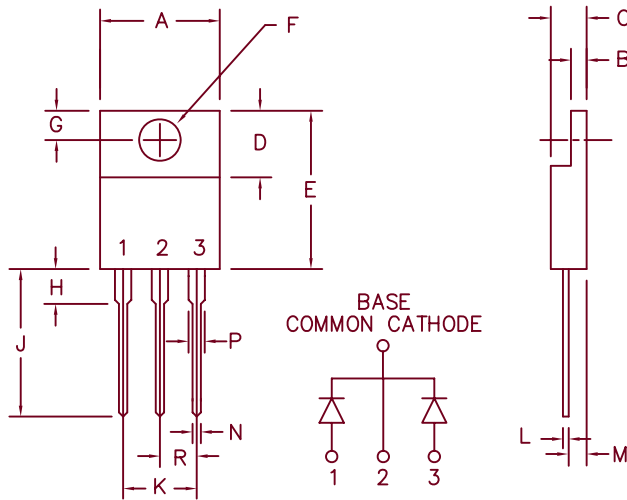


30 Amp Schottky Rectifier FST3235 — FST3245



Dim.	Inches		Millimeter		Notes
	Minimum	Maximum	Minimum	Maximum	
A	.390	.415	9.91	10.54	
B	.045	.055	1.14	1.40	
C	.180	.190	4.57	4.83	
D	.245	.260	6.22	6.60	
E	.550	.650	13.97	16.51	
F	.139	.161	3.53	4.09	Dia.
G	.100	.135	2.54	3.43	
H	---	.250	---	6.35	
J	.500	.580	12.70	14.73	
K	.190	.210	4.83	5.33	
L	.014	.022	.357	.559	
M	.080	.115	2.03	2.92	
N	.015	.040	.380	1.02	
P	.045	.070	1.14	1.78	
R	.090	.110	2.29	2.79	

PLASTIC TO-220AB

Microsemi Catalog Number	Repetitive Peak Reverse Voltage	Transient Peak Reverse Voltage
FST3235	35V	35V
FST3240	40V	40V
FST3245	45V	45V

- Schottky barrier rectifier
- Guard ring for reverse protection
- Low power loss, high efficiency
- High surge capacity
- V_{RRM} 35–45 Volts

Electrical Characteristics

Average Forward Current per pkg.	$I_{F(AV)}$ 30 Amps	$T_C = 113^\circ\text{C}$, Square wave, $R_{\theta JC} = 1.0^\circ\text{C/W}$
Average Forward Current per leg	$I_{F(AV)}$ 15 Amps	$T_C = 113^\circ\text{C}$, Square wave, $R_{\theta JC} = 2.0^\circ\text{C/W}$
Maximum Surge Current per leg	I_{FSM} 250 Amps	8.3ms, half sine, $T_J = 175^\circ\text{C}$
Max. Peak Forward Voltage per leg	V_{FM} 0.46 Volts	$I_{FM} = 15\text{A}$, $T_J = 150^\circ\text{C}^*$
Max. Peak Forward Voltage per leg	V_{FM} 0.52 Volts	$I_{FM} = 15\text{A}$, $T_J = 25^\circ\text{C}^*$
Max. Peak Reverse Current per leg	I_{RM} 2.0 mA	V_{RRM} , $T_J = 25^\circ\text{C}$
Typical junction capacitance per leg	C_J 780 pF	$V_R = 5.0\text{V}$, $T_J = 25^\circ\text{C}$

*Pulse test: Pulse width 300 μsec . Duty cycle 2%

Thermal and Mechanical Characteristics

Storage temp range	TSTG	-55°C to + 150°C
Operating junction temp range	T_J	-55°C to + 150°C
Max thermal resistance per leg	$R_{\theta JC}$	2.0°C/W Junction to case
Max thermal resistance per pkg	$R_{\theta JC}$	1.0°C/W Junction to case
Mounting torque		8–12 inch pounds (6–32 screw)
Weight		.06 ounces (1.8 grams) typical



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05-18-07 Rev. 1

FST3235 — FST3245

Figure 1
Typical Forward Characteristics — Per Leg

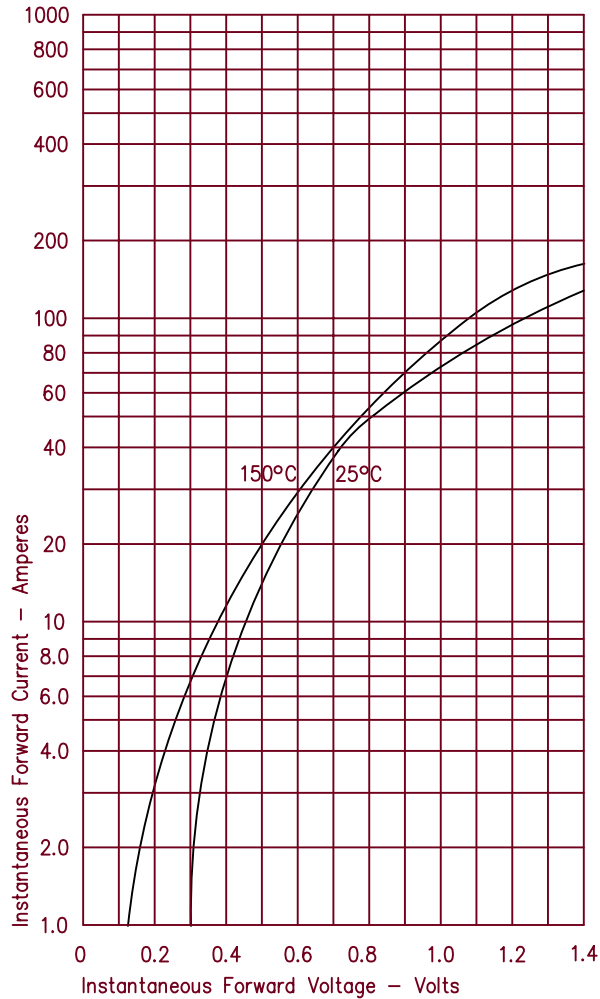


Figure 3
Typical Junction Capacitance — Per Leg

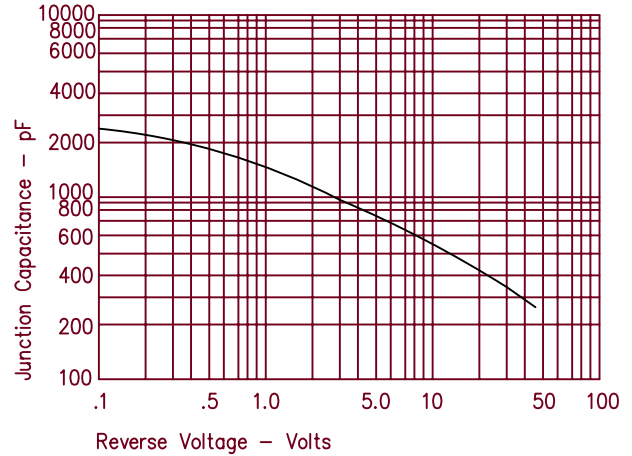


Figure 4
Forward Current Derating — Per Leg

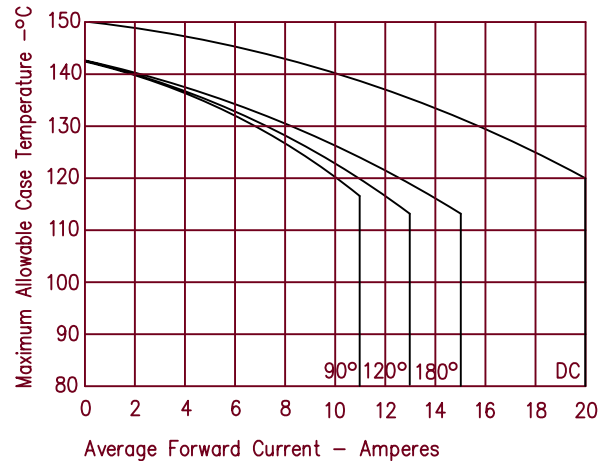


Figure 2
Typical Reverse Characteristics — Per Leg

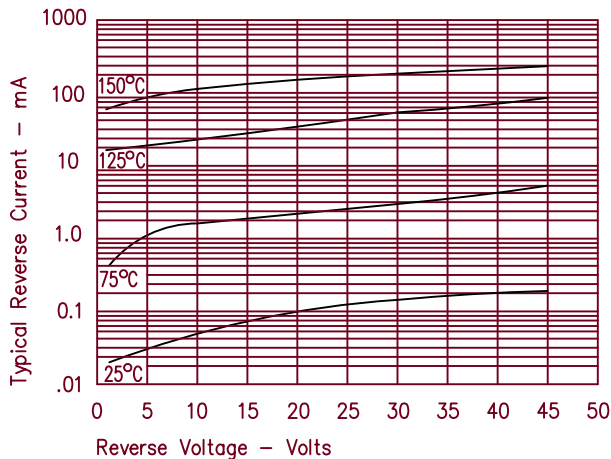


Figure 5
Maximum Forward Power Dissipation — Per Leg

