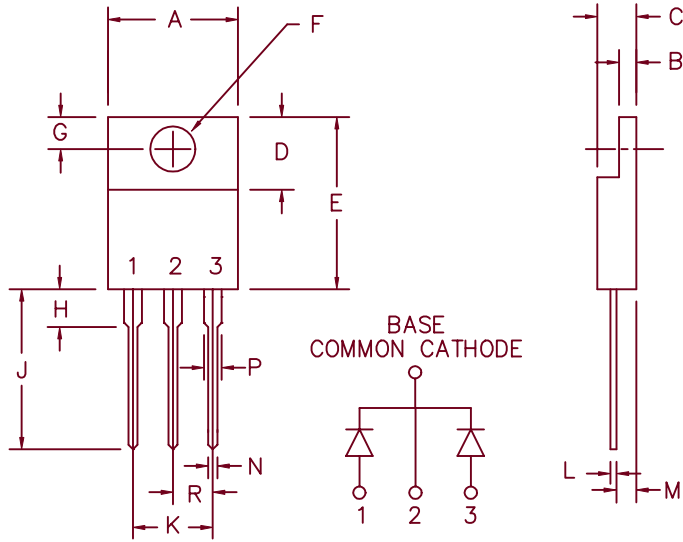


30 Amp Schottky Rectifiers FST3150 — FST3160



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

FST3150
FST3160

Repetitive Peak
Reverse Voltage

50V
60V

Transient Peak
Reverse Voltage

50V
60V

- Schottky barrier rectifier
- Guard ring for reverse protection
- Reverse energy tested
- High surge capacity
- V_{RRM} 50 to 60 Volts

Electrical Characteristics

Average Forward Current per pkg.
Average Forward Current per leg
Maximum Surge Current per leg
Max. Peak Forward Voltage per leg
Max. Peak Forward Voltage per leg
Max. Peak Reverse Current per leg
Max. Peak Reverse Current per leg
Typical junction capacitance

$I_{F(AV)}$ 30 Amps
 $I_{F(AV)}$ 15 Amps
 I_{FSM} 250 Amps
 V_{FM} 0.57 Volts
 V_{FM} 0.73 Volts
 I_{RM} 15 mA
 I_{RM} 500 μ A
 C_J 660 pF

$T_C = 153^\circ\text{C}$, Square wave, $R_{\theta JC} = 1.0^\circ\text{C/W}$
 $T_C = 153^\circ\text{C}$, Square wave, $R_{\theta JC} = 2.0^\circ\text{C/W}$
8.3ms, half sine, $T_J = 175^\circ\text{C}$
 $I_{FM} = 15\text{A}$, $T_J = 175^\circ\text{C}^*$
 $I_{FM} = 15\text{A}$, $T_J = 25^\circ\text{C}^*$
 V_{RRM} , $T_J = 125^\circ\text{C}^*$
 V_{RRM} , $T_J = 25^\circ\text{C}$
 $V_R = 5.0\text{V}$, $T_J = 25^\circ\text{C}$

*Pulse test: Pulse width 300 μ sec. Duty cycle 2%

Thermal and Mechanical Characteristics

Storage temp range
Operating junction temp range
Max thermal resistance per leg
Max thermal resistance per pkg.
Mounting torque
Weight

T_{STG}
 T_J
 $R_{\theta JC}$
 $R_{\theta JC}$

-55°C to $+175^\circ\text{C}$
 -55°C to $+175^\circ\text{C}$
 2.0°C/W Junction to case
 1.0°C/W Junction to case
15 inch pounds maximum (6-32 screw)
.06 ounces (1.8 grams) typical

FST3150 — FST3160

Figure 1
Typical Forward Characteristics — Per Leg

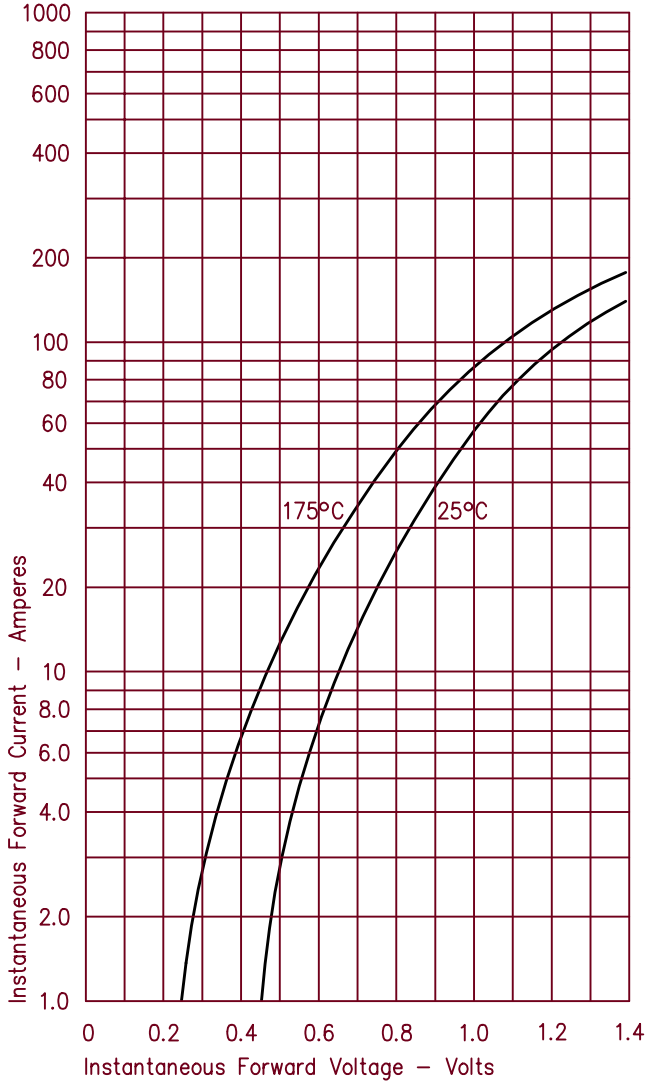


Figure 3
Typical Junction Capacitance — Per Leg

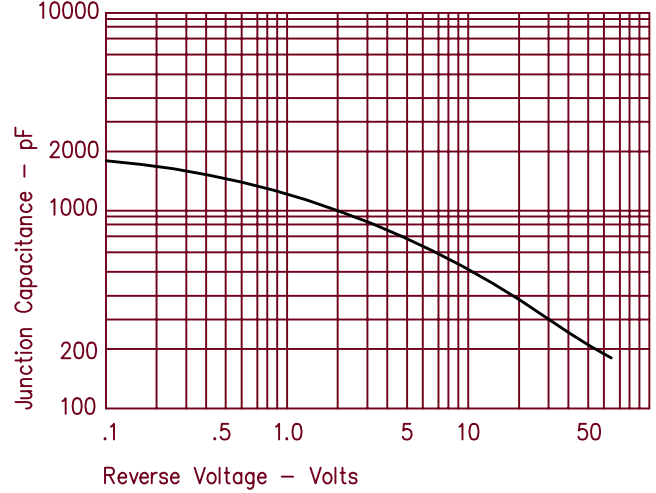


Figure 4
Forward Current Derating — Per Leg

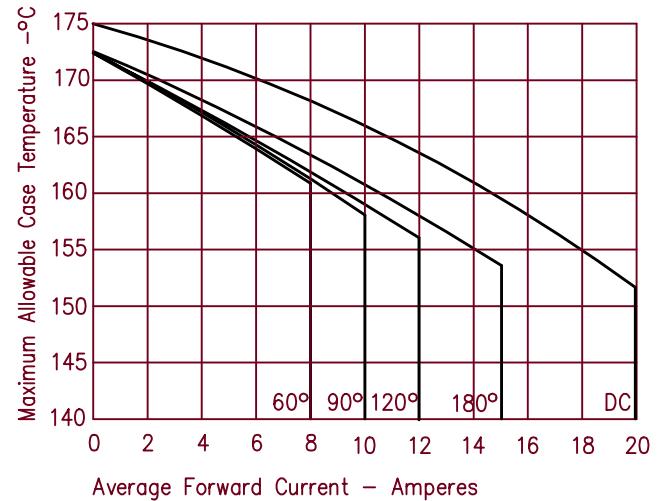


Figure 2
Typical Reverse Characteristics — Per Leg

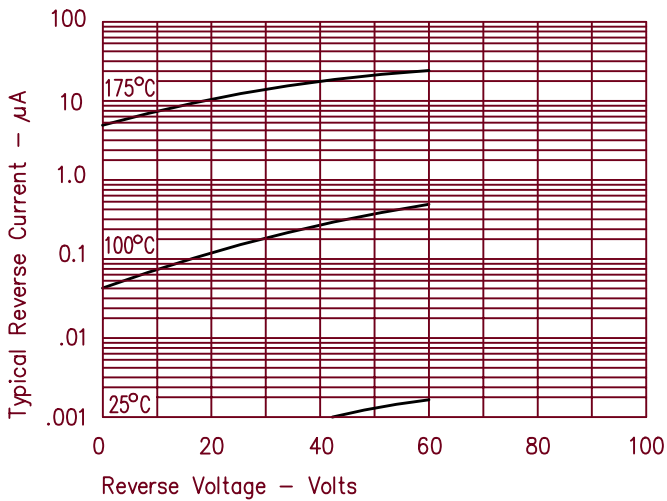


Figure 5
Maximum Forward Power Dissipation — Per Leg

