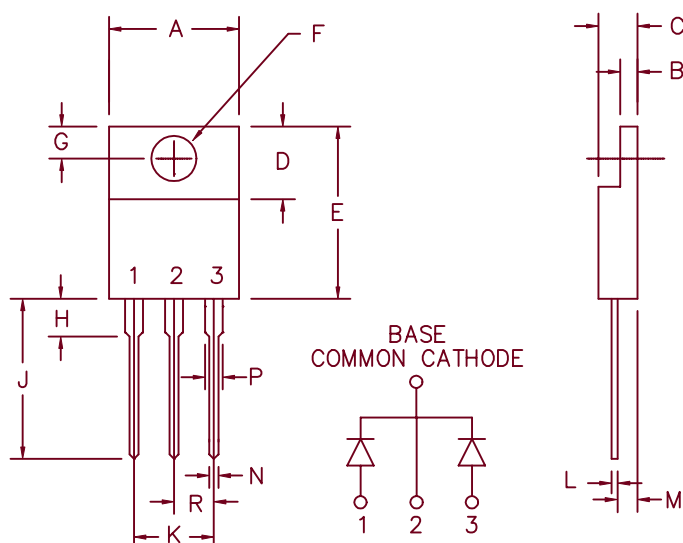


20 Amp Schottky Barrier Rectifiers FST2050 — FST2060



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

FST2050
FST2060

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

$I_{F(AV)}$ 20 Amps
 $I_{F(AV)}$ 10 Amps
 I_{FSM} 225 Amps
 V_{FM} .53 Volts
 V_{FM} .67 Volts
 I_{RM} 10 mA
 I_{RM} 250 μ A
 C_J 570 pF

$T_C = 137^\circ\text{C}$, square wave, $R_{\theta JC} = 2.8^\circ\text{C/W}$
 $T_C = 137^\circ\text{C}$, square wave, $R_{\theta JC} = 5.6^\circ\text{C/W}$
8.3ms, half sine, $T_J = 175^\circ\text{C}$
 $I_{FM} = 10\text{A}$, $T_J = 175^\circ\text{C}^*$
 $I_{FM} = 10\text{A}$, $T_J = 25^\circ\text{C}^*$
 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 usec. Duty cycle 2%

Thermal and Mechanical Characteristics

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

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

-55°C to $+175^\circ\text{C}$
 -55°C to $+175^\circ\text{C}$
 5.6°C/W Junction to case
 2.8°C/W Junction to case
 4.67°C/W Junction to case
.08 ounces (2.3 grams) typical

FST2050, FST2060

Figure 1
Typical Forward Characteristics – per leg

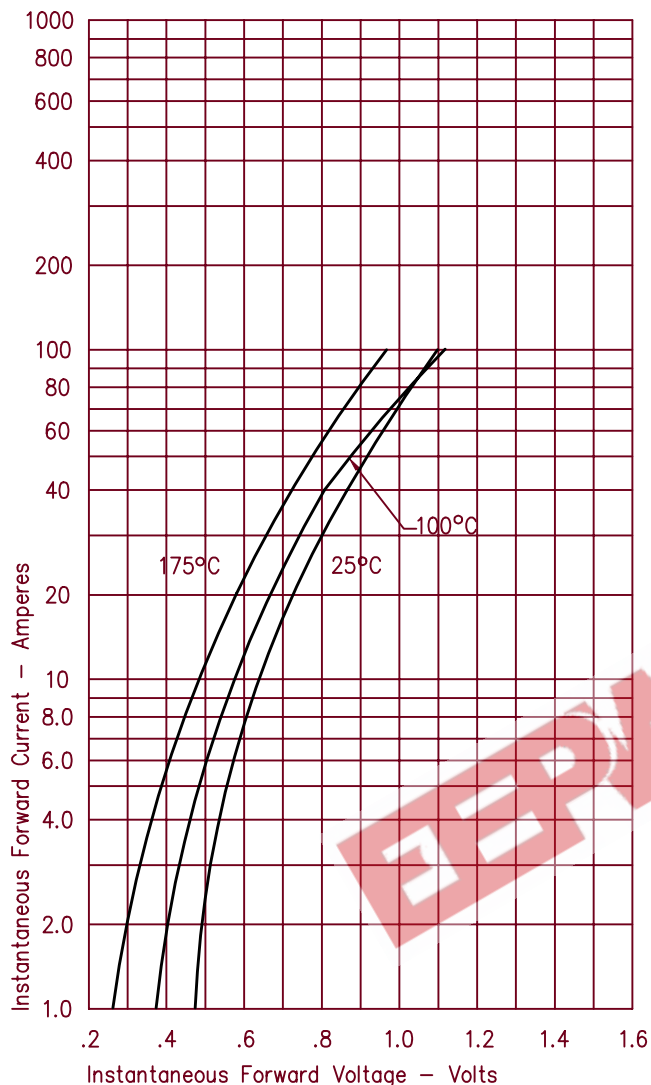


Figure 3
Typical Junction Capacitance – per leg

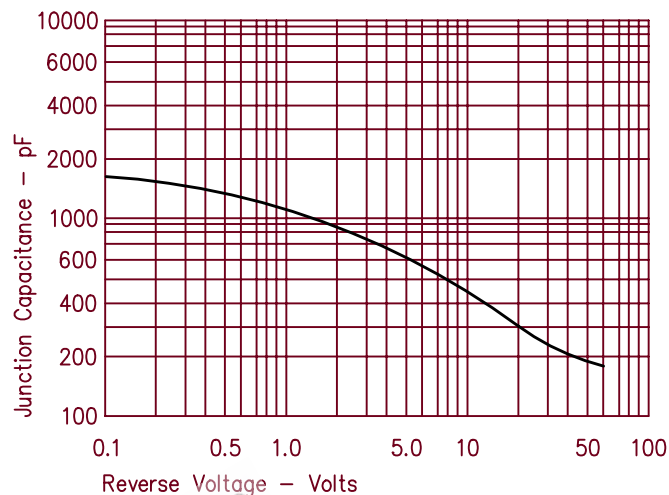


Figure 4
Forward Current Derating – per leg

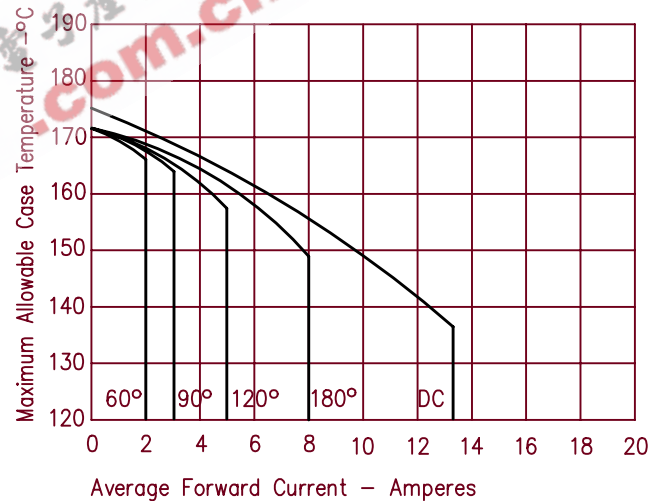


Figure 2
Typical Reverse Characteristics – per leg

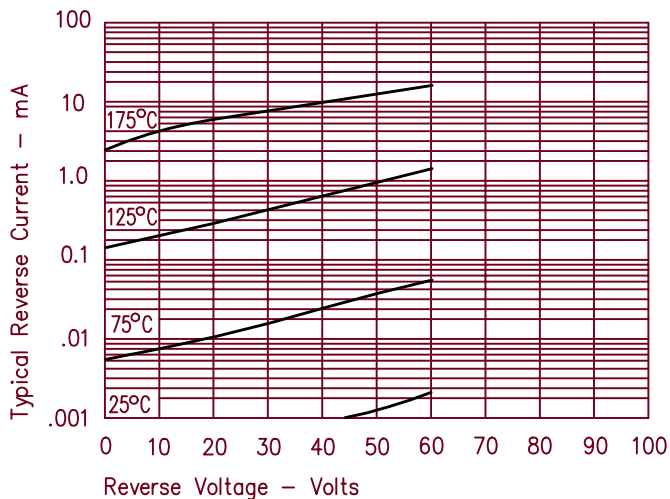


Figure 5
Maximum Forward Power Dissipation – per leg

