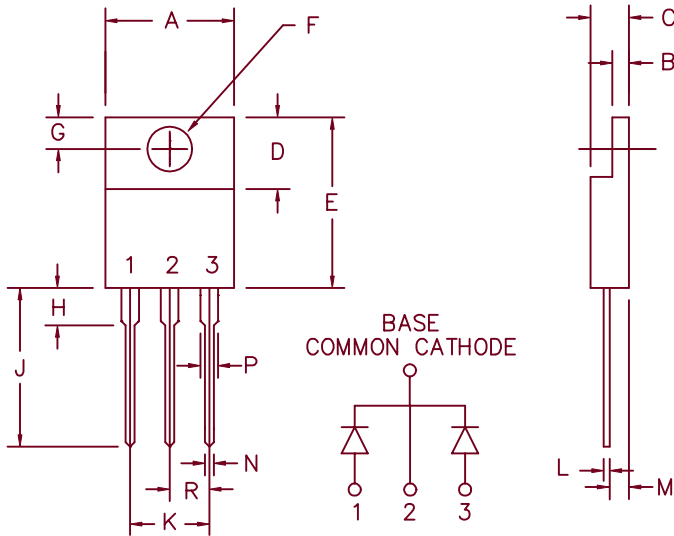


# 20 Amp Schottky Barrier Rectifiers FST2050 — FST2060



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	Industry Part Number	Repetitive Peak Reverse Voltage	Transient Peak Reverse Voltage
FST2050		50V	50V
FST2060	MBR1560CT, MBR2060CT	60V	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.	$I_F(AV)$ 20 Amps	$T_C = 158^\circ C$ , square wave, $R_{\theta JC} = 1.2^\circ C/W$
Average forward current per leg	$I_F(AV)$ 10 Amps	$T_C = 158^\circ C$ , square wave, $R_{\theta JC} = 2.4^\circ C/W$
Maximum surge current per leg	$I_{FSM}$ 225 Amps	8.3ms, half sine, $T_J = 175^\circ C$
Max. peak forward voltage per leg	$V_{FM}$ .53 Volts	$I_{FM} = 10A$ , $T_J = 175^\circ C$ *
Max. peak forward voltage per leg	$V_{FM}$ .67 Volts	$I_{FM} = 10A$ , $T_J = 25^\circ C$ *
Max. peak reverse current per leg	$I_{RM}$ 10 mA	$V_{RRM}$ , $T_J = 125^\circ C$ *
Max. peak reverse current per leg	$I_{RM}$ 250 $\mu A$	$V_{RRM}$ , $T_J = 25^\circ C$
Typical junction capacitance	$C_J$ 570 pF	$V_R = 5.0V$ , $T_J = 25^\circ C$

\*Pulse test: Pulse width 300 usec. Duty cycle 2%

## Thermal and Mechanical Characteristics

Storage temp range	TSTG	-55°C to + 175°C
Operating junction temp range	$T_J$	-55°C to + 175°C
Max thermal resistance per leg	$R_{\theta JC}$	2.4°C/W Junction to case
Max thermal resistance per pkg.	$R_{\theta JC}$	1.2°C/W Junction to case
Typical thermal resistance (greased)	$R_{\theta CS}$	0.5°C/W Case to sink
Weight		.08 ounces (2.3 grams) typical

# FST2050, FST2060

Figure 1  
Typical Forward Characteristics – per leg

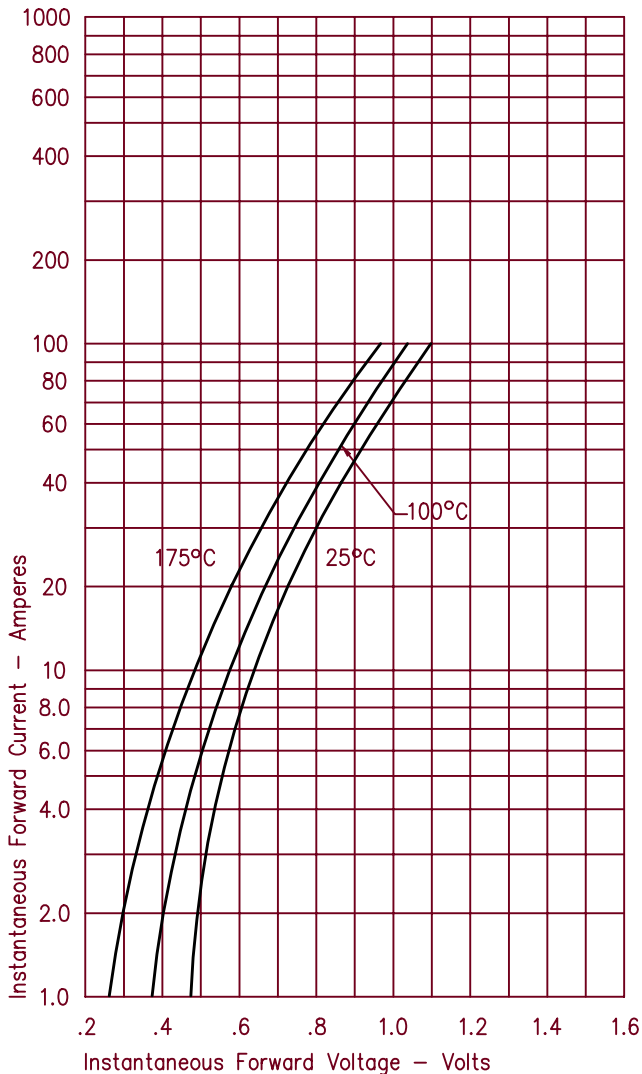


Figure 3  
Typical Junction Capacitance – per leg

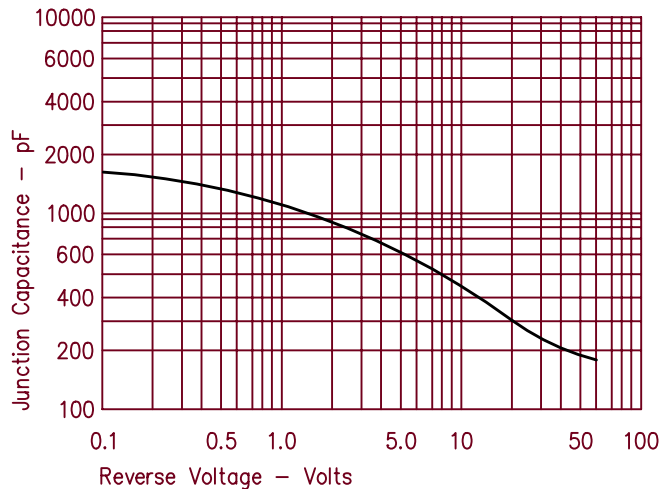


Figure 4  
Forward Current Derating – per leg

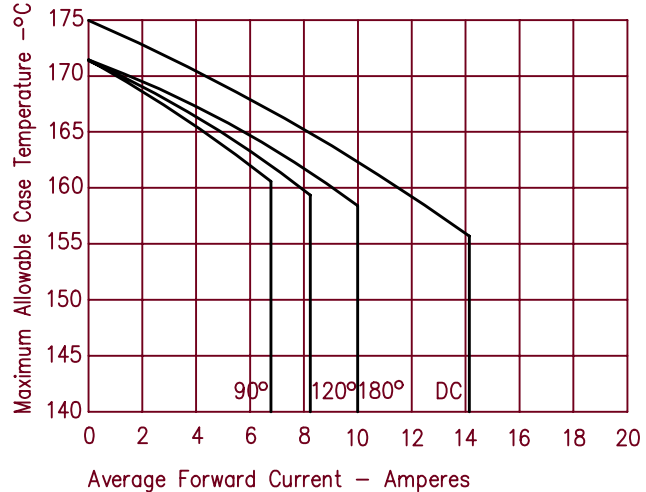


Figure 2  
Typical Reverse Characteristics – per leg

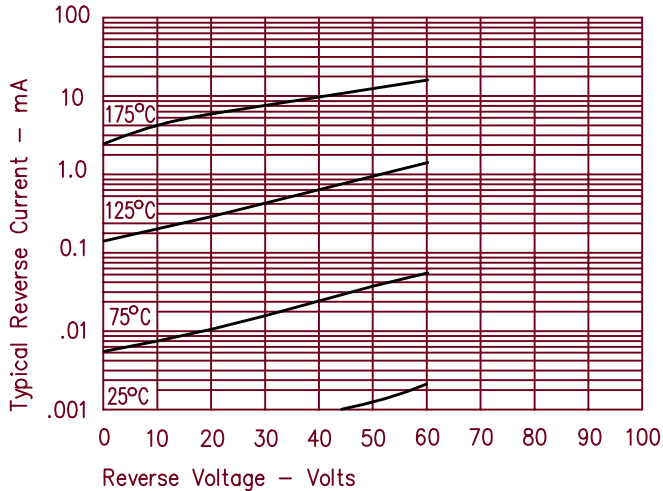


Figure 5  
Maximum Forward Power Dissipation – per leg

