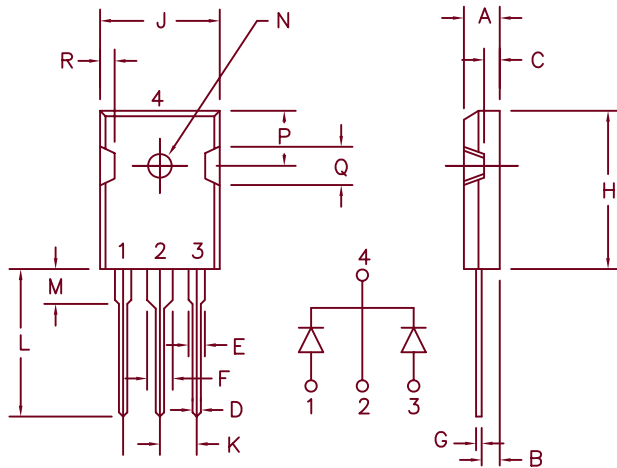


# 40Amp Schottky Rectifier FST4050 — FST4060



Similar to TO-247AD

Dim.	Inches		Millimeter		Notes
	Minimum	Maximum	Minimum	Maximum	
A	.185	.209	4.70	5.31	
B	.087	.102	2.21	2.59	
C	.059	.098	1.50	2.49	
D	.040	.055	1.02	1.40	
E	.079	.094	2.01	2.39	
F	.118	.133	3.00	3.38	
G	.016	.031	.410	0.78	
H	.819	.883	20.80	22.4	
J	.627	.650	15.93	16.5	
K	.215	—	5.46	—	Typ.
L	.790	.810	20.07	20.6	
M	.157	.180	3.99	4.57	
N	.139	.144	3.53	3.66	Dia.
P	.255	.300	6.48	7.62	
Q	.170	.210	4.32	5.33	
R	.080	.110	2.03	2.79	

Microsemi Catalog Number	Industry Part Number	Repetitive Peak Reverse Voltage	Transient Peak Reverse Voltage
FST4050	40CPQ050	50V	50V
FST4060	40CPQ060 MBR4060WT MBR4060PT	60V	60V

- Guard ring for reverse protection
- Low power loss, high efficiency
- High surge capacity
- 175°C Junction Temperature
- VRRM 50 to 60 Volts

### Electrical Characteristics

Average Forward Current per pkg.	$I_{F(AV)}$ 40 Amps	$T_C = 160^\circ\text{C}$ , Square wave, $R_{\theta JC} = 1.0^\circ\text{C/W}$
Average Forward Current per leg	$I_{F(AV)}$ 20 Amps	$T_C = 160^\circ\text{C}$ , Square wave, $R_{\theta JC} = 2.0^\circ\text{C/W}$
Maximum Surge Current per leg	$I_{FSM}$ 400 Amps	8.3ms, half sine
Max. Peak Forward Voltage per leg	$V_{FM}$ .65 Volts	$I_{FM} = 20\text{A}$ , $T_J = 25^\circ\text{C}^*$
Max. Peak Reverse Current per leg	$I_{RM}$ 25 mA	$V_{RRM}$ , $T_J = 125^\circ\text{C}^*$
Max. Peak Reverse Current per leg	$I_{RM}$ 1.5 mA	$V_{RRM}$ , $T_J = 25^\circ\text{C}$
Typical Junction Capacitance per leg	$C_J$ 1200 pF	$V_R = 5.0\text{V}$ , $T_J = 25^\circ\text{C}$

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

### Thermal and Mechanical Characteristics

Storage temp range	TSTG	-55°C to +175°C
Operating junction temp range	$T_J$	-55°C to +150°C
Max thermal resistance per leg	$R_{\theta JC}$	2.0°C/W
Max thermal resistance per pkg.	$R_{\theta JC}$	1.0°C/W
Mounting Torque		5-10 inch pounds (4-40 screws)
Weight		.22 ounces (6.36 grams) typical



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05-18-07 Rev. 4

# FST4050 — FST4060

Figure 1  
Typical Forward Characteristics—Per Leg

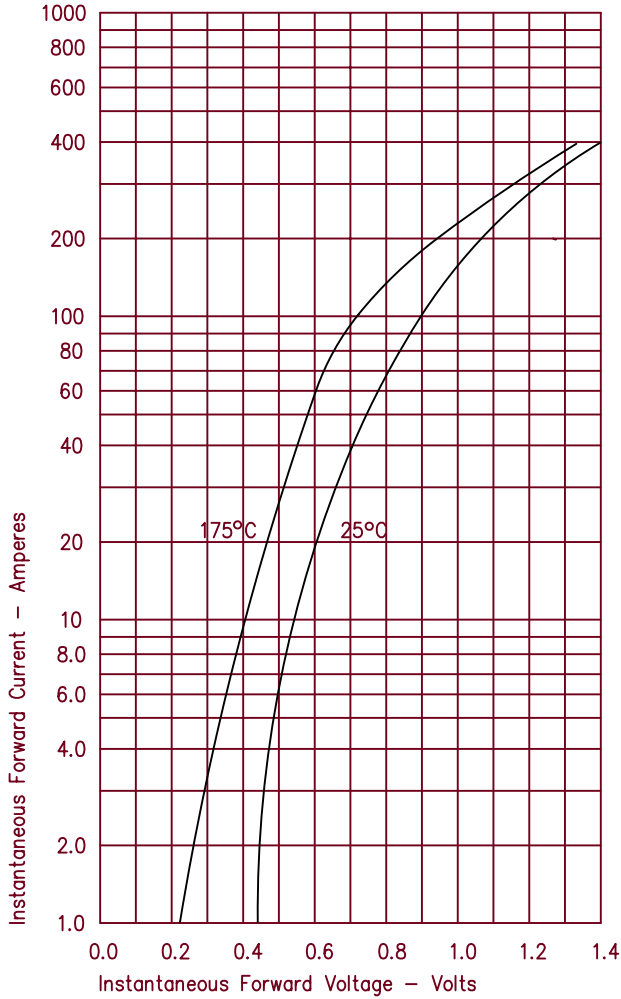


Figure 3  
Typical Junction Capacitance—Per Leg

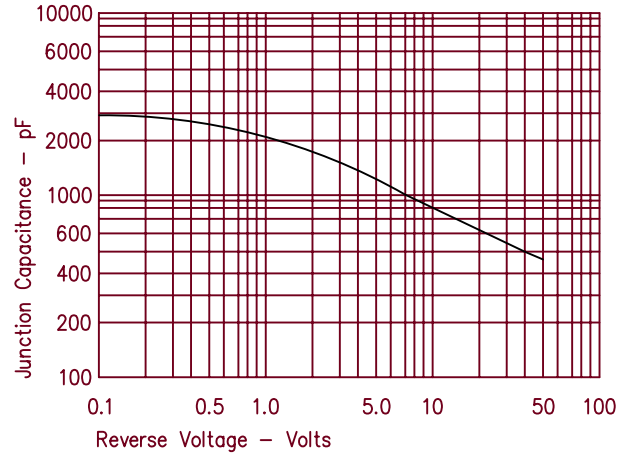


Figure 4  
Forward Current Derating—Per Leg

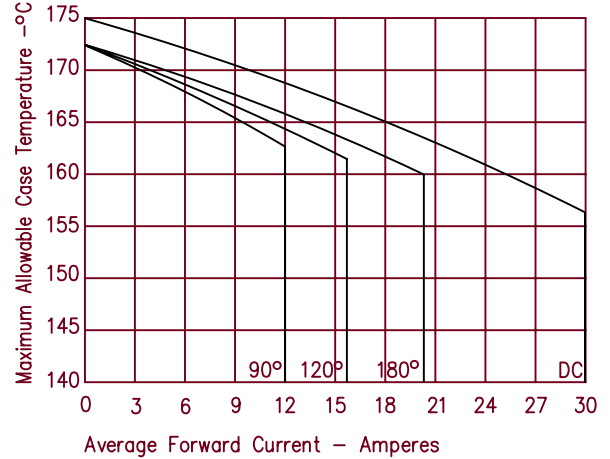


Figure 2  
Typical Reverse Characteristics—Per Leg

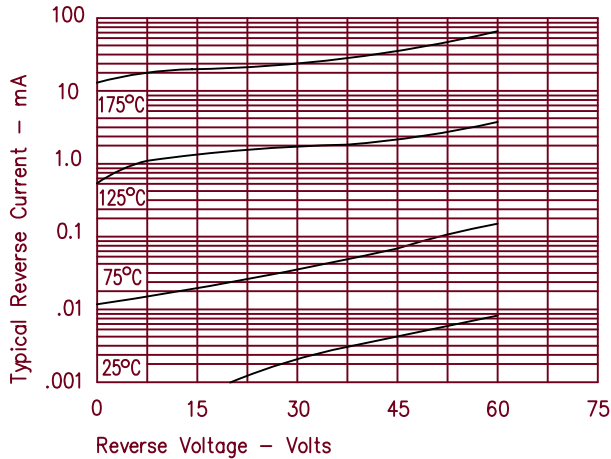


Figure 5  
Maximum Forward Power Dissipation—Per Leg

