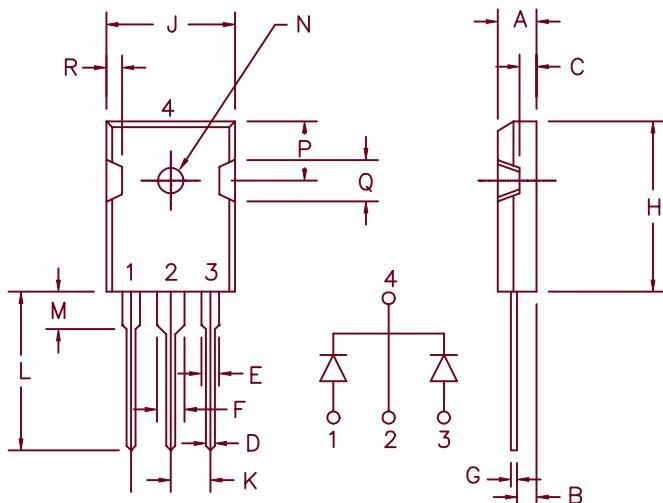


30Amp Schottky Barrier Rectifier

FST3060



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

FST3060

30CPQ060
MBR3060WT

60V

60V

- Schottky Barrier Rectifier
- Guard ring for reverse protection
- Low power loss, high efficiency
- High surge capacity
- 175°C Junction Temperature

Electrical Characteristics

Average Forward Current per pkg.

$I_{F(AV)}$ 30Amps

$T_J = 156^\circ\text{C}$, Square Wave, $R_{\theta JC} = 0.9^\circ\text{C}/\text{W}$

Average Forward Current per leg

$I_{F(AV)}$ 15Amps

$T_J = 156^\circ\text{C}$, Square Wave, $R_{\theta JC} = 1.8^\circ\text{C}/\text{W}$

Maximum Surge Current per leg

I_{FSM} 350 Amps

8.3ms, half sine, $T_J = 175^\circ\text{C}$

Max. Peak Forward Voltage per leg

V_{FM} .56 Volts

$I_{FM} = 15\text{A}$, $T_J = 175^\circ\text{C}^*$

Max. Peak Forward Voltage per leg

V_{FM} .72 Volts

$I_{FM} = 15\text{A}$, $T_J = 25^\circ\text{C}^*$

Max. Peak Reverse Current per leg

I_{RM} 15 mA

V_{RRM} , $T_J = 125^\circ\text{C}^*$

Max. Peak Reverse Current per leg

I_{RM} 500 μA

V_{RRM} , $T_J = 25^\circ\text{C}$

Typical Junction Capacitance per leg

C_J 660 pF

$VR = 5.0\text{V}$, $T_J = 25^\circ\text{C}$

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

Thermal and Mechanical Characteristics

Storage temp range

TSTG

-55°C to 175°C

Operating junction temp range

T_J

-55°C to 175°C

Max thermal resistance per leg

$R_{\theta JC}$

1.8°C/W

Max thermal resistance per pkg.

$R_{\theta JC}$

0.9°C/W

Mounting Torque

10 inch pounds maximum (4-40 screw)

Weight

.22 ounces (6.36 grams) typical

FST3060

Figure 1
Typical Forward Characteristics – Per Leg

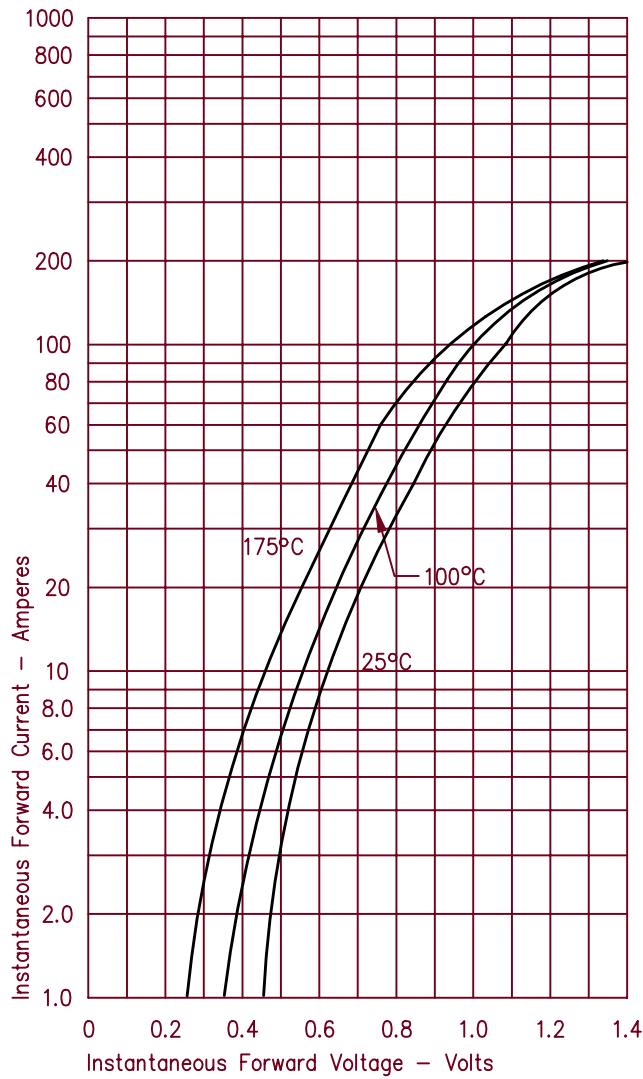


Figure 3
Typical Junction Capacitance – Per Leg

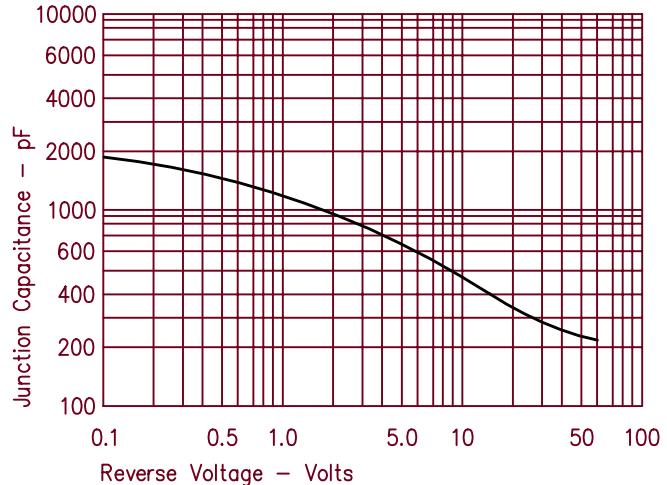


Figure 4
Forward Current Derating – Per Leg

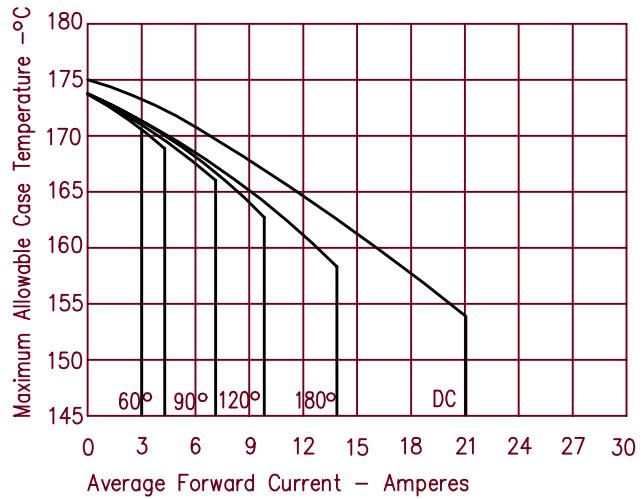


Figure 2
Typical Reverse Characteristics – Per Leg

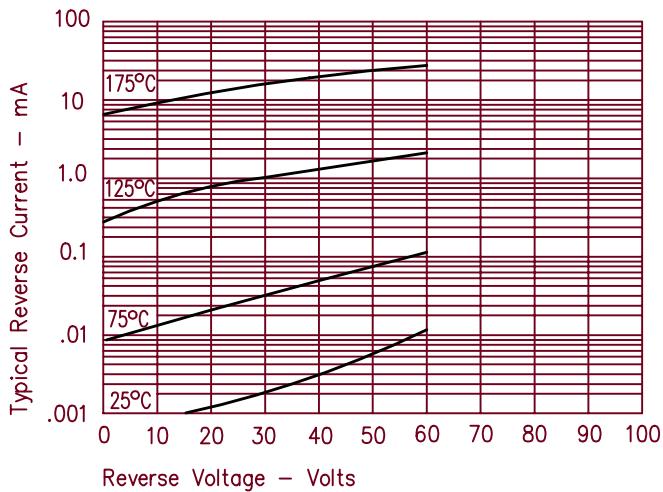


Figure 5
Maximum Forward Power Dissipation – Per Leg

