

Excellent Integrated System Limited

Stocking Distributor

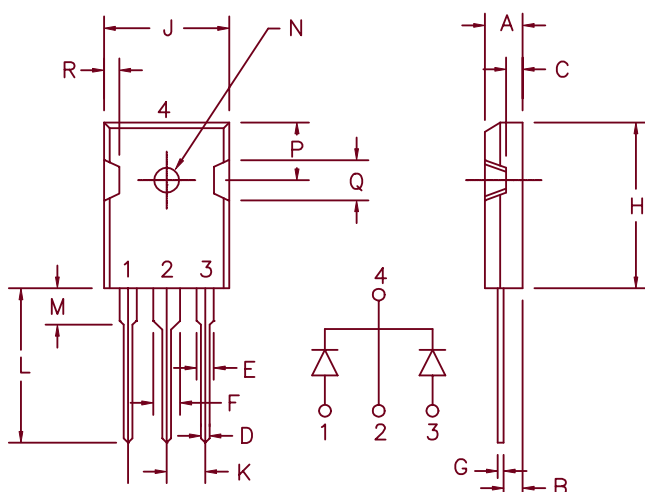
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[Microsemi Commercial Components](#)
[FST30100](#)

For any questions, you can email us directly:

sales@integrated-circuit.com

30Amp Schottky Barrier Rectifier FST3080 — FST30100



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

FST3080

30CPQ080
MBR3080WT

80V

80V

FST3090

30CPQ090

90V

90V

FST30100

30CPQ100
MBR30100WT

100V

100V

- Schottky Barrier Rectifier
- Guard ring for reverse protection
- Low power loss, high efficiency
- High surge capacity
- V_{RRM} 80 to 100 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 per leg

$I_F(AV)$ 30Amps
 $I_F(AV)$ 15Amps
 I_{FSM} 350 Amps
 V_{FM} 0.65 Volts
 V_{FM} 0.85 Volts
 I_{RM} 15 mA
 I_{RM} 500 μ A
 C_J 550 pF

$T_C = 155^\circ\text{C}$, square wave, $R_{\theta JC} = 0.9^\circ\text{C/W}$
 $T_C = 155^\circ\text{C}$, square wave, $R_{\theta JC} = 1.8^\circ\text{C/W}$
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°C
 -55°C to 175°C
 1.8°C/W
 0.9°C/W
10 inch pounds maximum (4-40 screw)
.22 ounces (6.36 grams) typical



COLORADO

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10-8-01 Rev. 3

FST3080 — FST30100

Figure 1
Typical Forward Characteristics — Per Leg

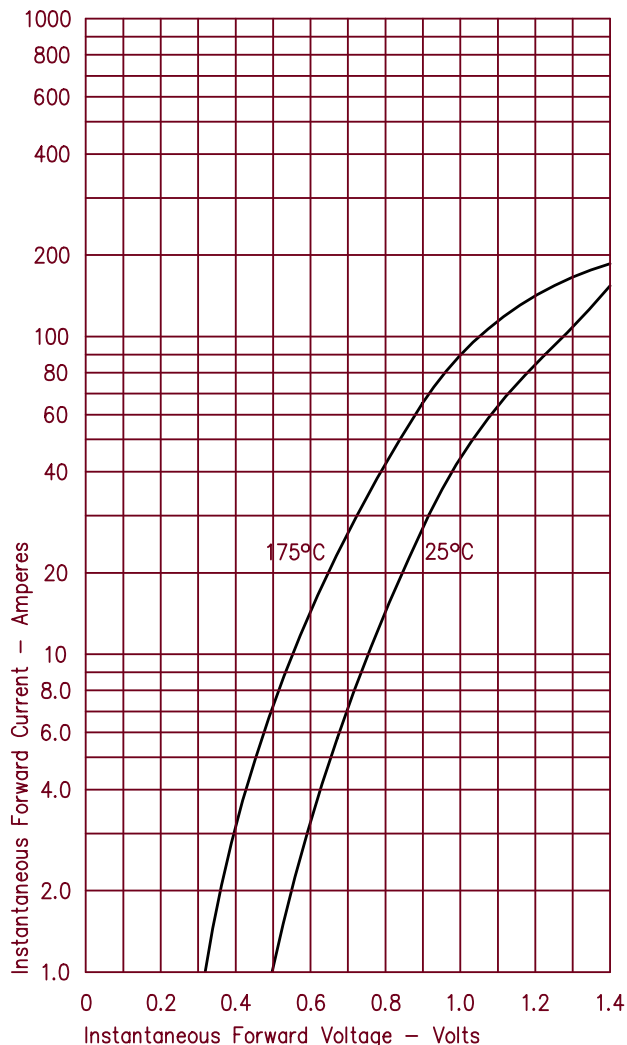


Figure 3
Typical Junction Capacitance — Per Leg

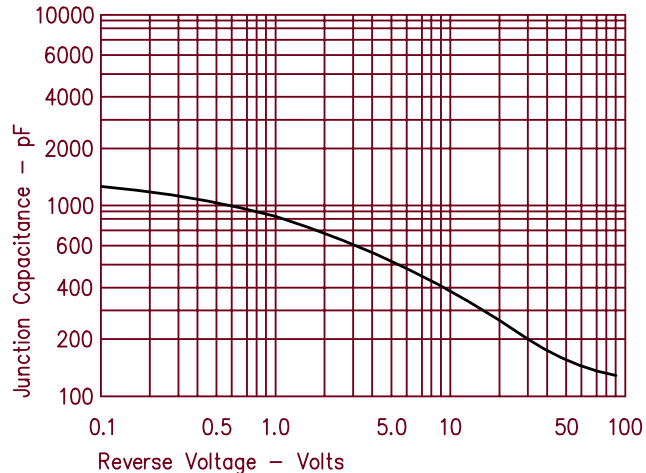


Figure 4
Forward Current Derating — Per Leg

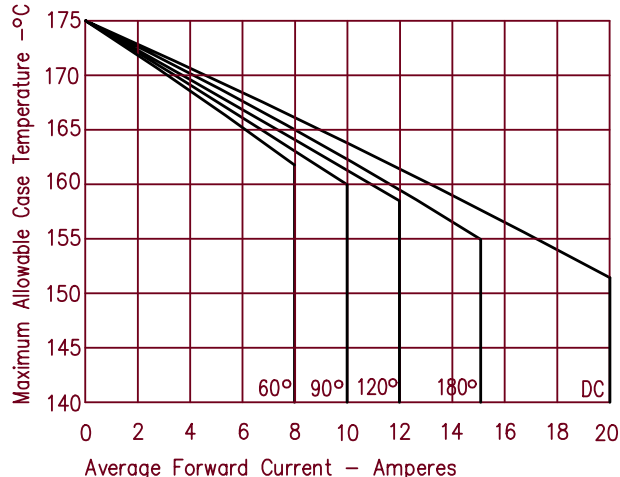


Figure 2
Typical Reverse Characteristics — Per Leg

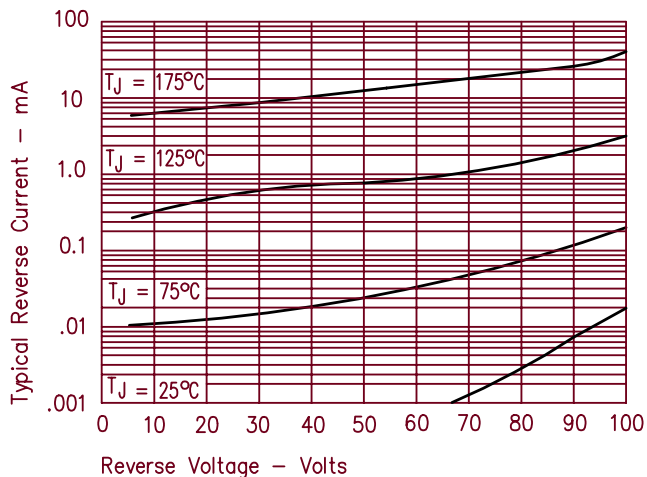


Figure 5
Maximum Forward Power Dissipation — Per Leg

