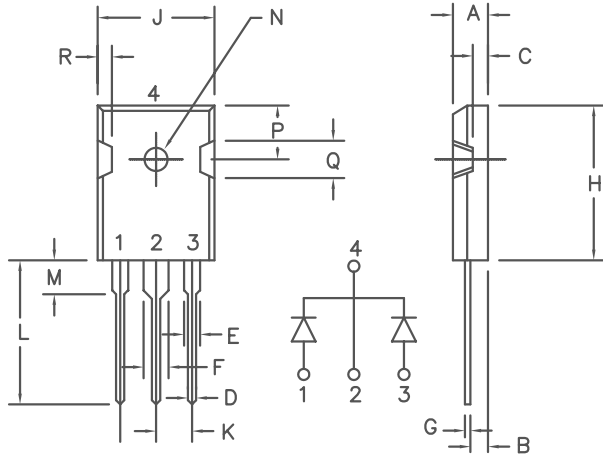


80 Amp Schottky Rectifier FST84120—FST84150



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	<ul style="list-style-type: none"> • Schottky barrier rectifier • Guard ring for reverse protection • Low power loss • 175°C Junction Temperature • VRRM 120–150 Volts
FST84120		120V	120V	
FST84150		150V	150V	

Electrical Characteristics		
Average forward current per pkg.	I _{F(AV)} 80 Amps	T _C = 149°C, square wave, R _{θJC} = 0.4°C/W
Average forward current per leg	I _{F(AV)} 40 Amps	T _C = 149°C, square wave, R _{θJC} = 0.8°C/W
Maximum surge current	I _{FSM} 600 Amps	8.3ms, half sine, T _J = 175°C
Max. repetitive reverse current	I _{R(OV)} 2 Amps	f = 1KHZ, 25°C, 1us square wave
Max. peak forward voltage per leg	V _{FM} .88 Volts	I _{FM} = 40A, T _J = 25°C*
TYP. peak forward voltage per leg	V _{FM} .68 Volts	I _{FM} = 40A, T _J = 125°C*
TYP. peak reverse current per leg	I _{RM} 700 μA	V _{RRM} , T _J = 125°C*
Max. peak reverse current per leg	I _{RM} 500 μA	V _{RRM} , T _J = 25°C
Typical junction capacitance per leg	C _J 840 pF	VR = 5.0V, T _J = 25°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 _{θJC}	0.8°C/W
Max thermal resistance per pkg.	R _{θJC}	0.4°C/W
Mounting Torque		8–12 inch pounds (#6 screw)
Weight		.22 ounces (6.36 grams) typical

FST84120-FST84150

Figure 1
Typical Forward Characteristics – Per Leg

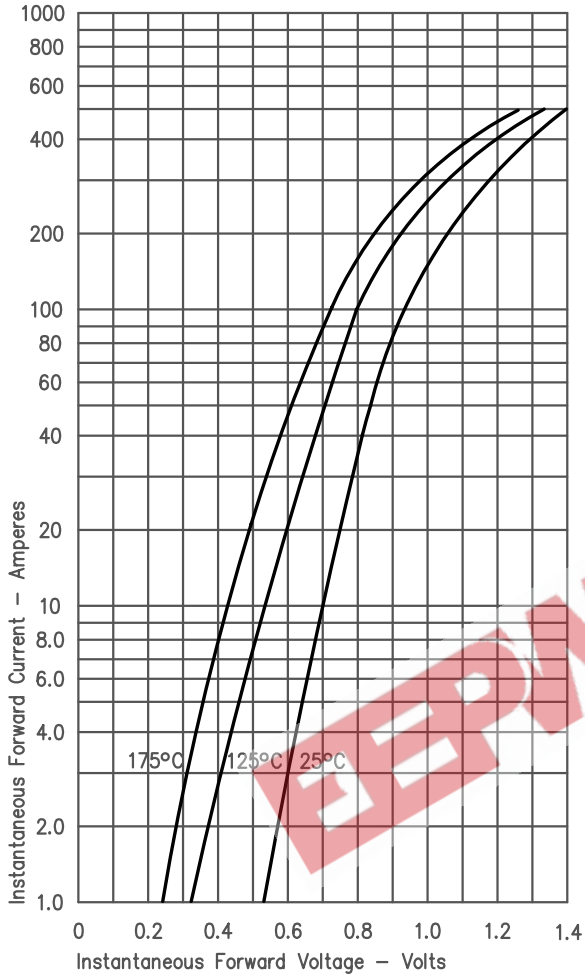


Figure 3
Typical Junction Capacitance – Per Leg

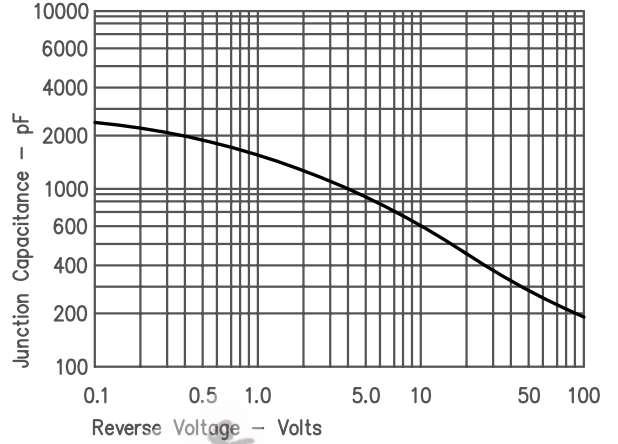


Figure 4
Forward Current Derating – Per Leg

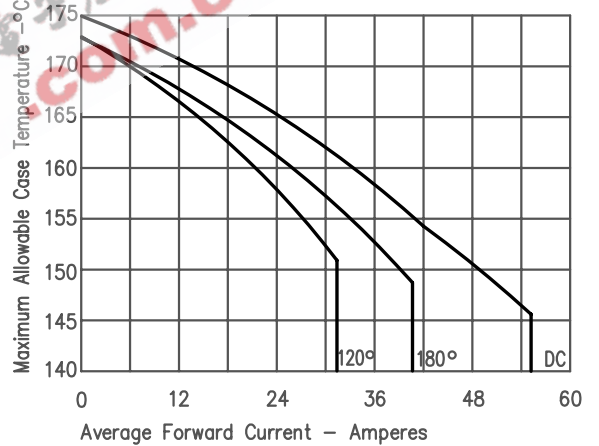


Figure 2
Typical Reverse Characteristics – Per Leg

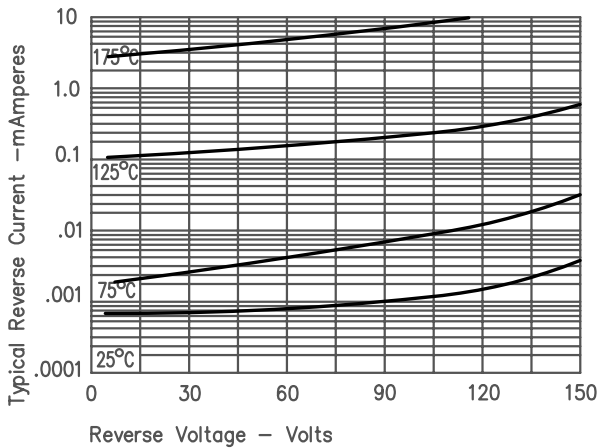


Figure 5
Maximum Forward Power Dissipation – Per Leg

