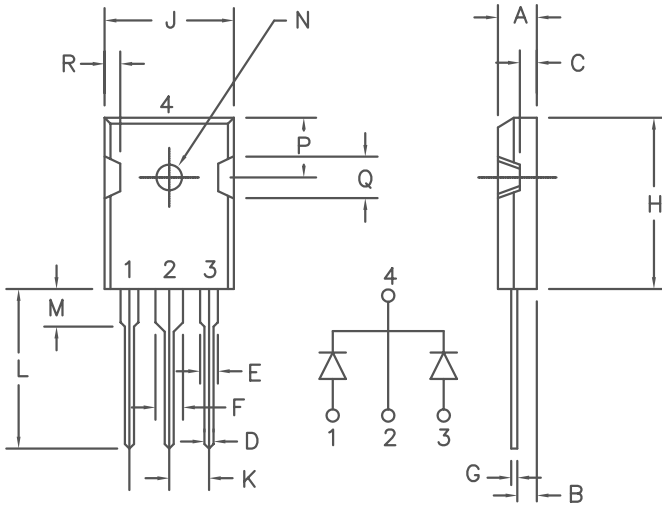


80 Amp Schottky Rectifier FST84180—FST84200



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

FST84180

180V

180V

FST84200

200V

200V

- Schottky barrier rectifier
- VRRM 180–200 Volts
- 2 x 40 Amperes Avg.
- 175°C Junction Temperature
- High Surge capability

Electrical Characteristics

Average forward current per pkg.
Average forward current per leg
Maximum surge current per leg
Max. peak forward voltage per leg
Typical peak forward voltage per leg
Typical peak reverse current per leg
Max. peak reverse current per leg
Typical junction capacitance per leg

$I_{F(AV)}$ 80 Amps
 $I_{F(AV)}$ 40 Amps
 I_{FSM} 600 Amps
 V_{FM} .92 Volts
 V_{FM} .80 Volts
 I_{RM} 2.0 mA
 I_{RM} 500 μ A
 C_J 700 pF

$T_C = 142^\circ\text{C}$, square wave
 $T_C = 142^\circ\text{C}$, square wave
8.3ms, half sine, $T_J = 175^\circ\text{C}$
 $I_{FM} = 40\text{A}$, $T_J = 25^\circ\text{C}^*$
 $I_{FM} = 40\text{A}$, $T_J = 125^\circ\text{C}^*$
 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 usec. Duty Cycle 2%

Thermal and Mechanical Characteristics

Storage temp range
Operating junction temp range
Max thermal resistance per leg
Max thermal resistance per pkg.
Typical thermal resistance per pkg.
Mounting Torque
Weight

TSTG
 T_J
 $R_{\theta JC}$
 $R_{\theta JC}$
 $R_{\theta CS}$

-55°C to $+175^\circ\text{C}$
 -55°C to $+175^\circ\text{C}$
0.8°C/W junction to case
0.4°C/W junction to case
0.25°C/W case to sink
8–12 inch pounds (#6 screw)
.22 ounces (6.36 grams) typical

FST84180–FST84200

Figure 1
Typical Forward Characteristics – Per Leg

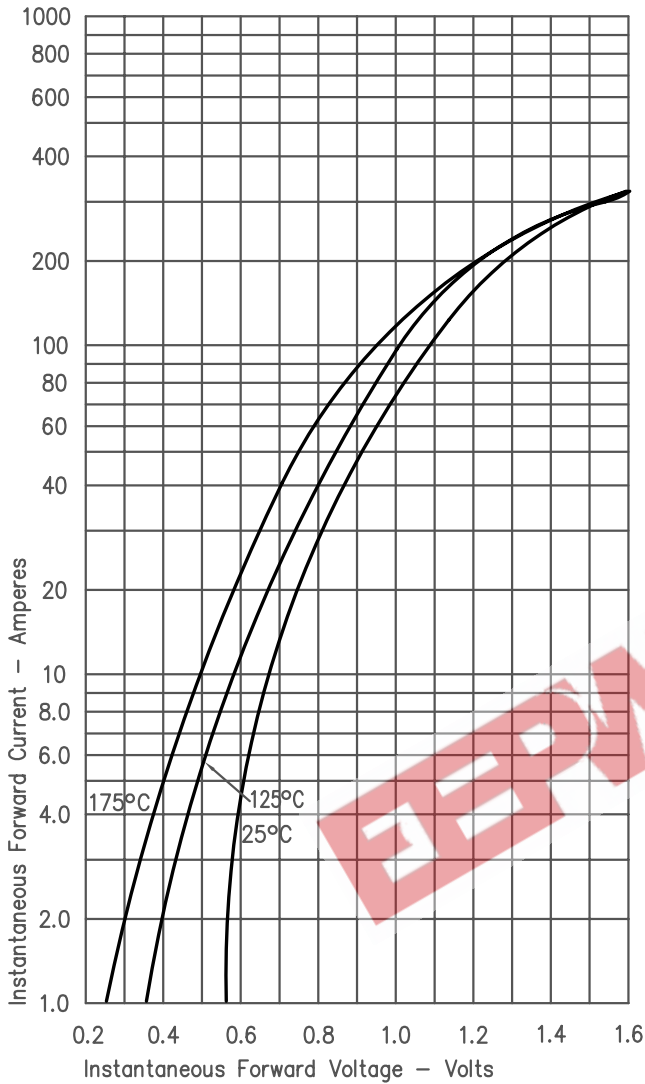


Figure 3
Typical Junction Capacitance – Per Leg

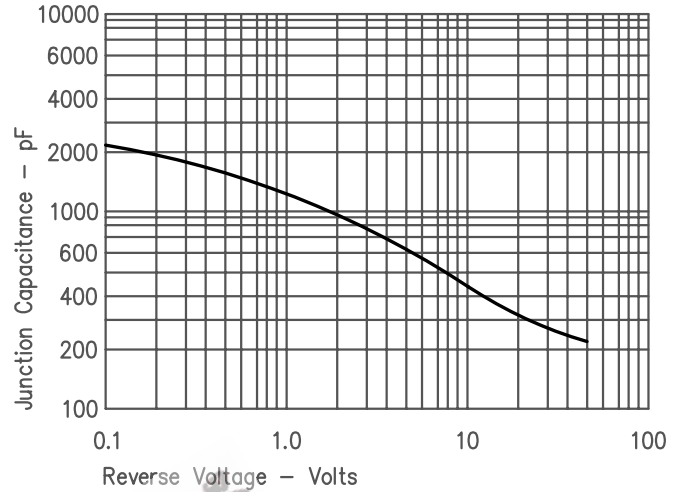


Figure 4
Forward Current Derating – Per Leg

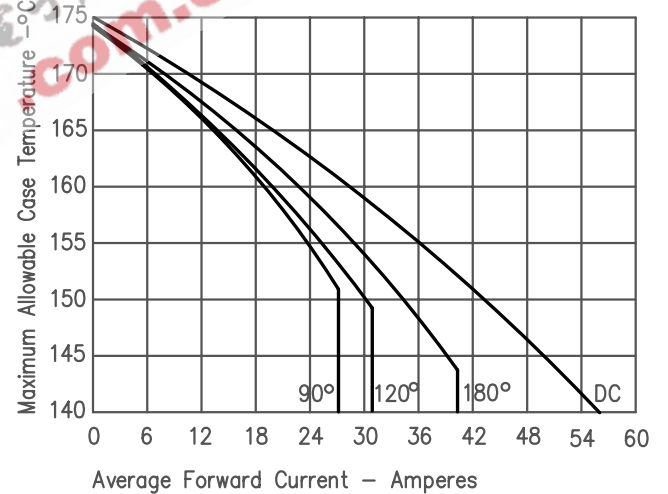


Figure 2
Typical Reverse Characteristics – Per Leg

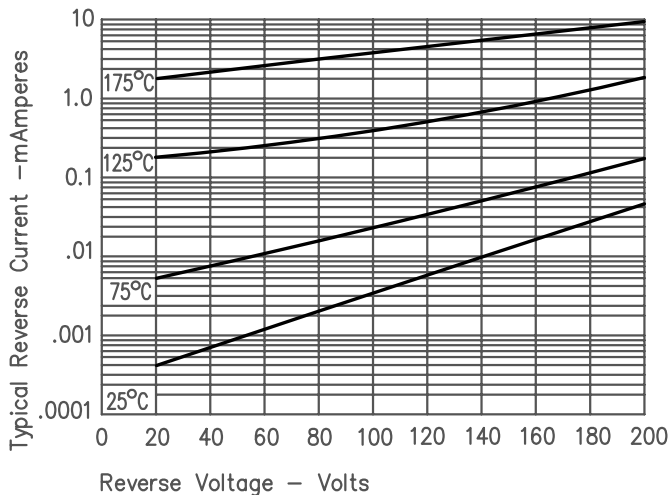


Figure 5
Maximum Forward Power Dissipation – Per Leg

