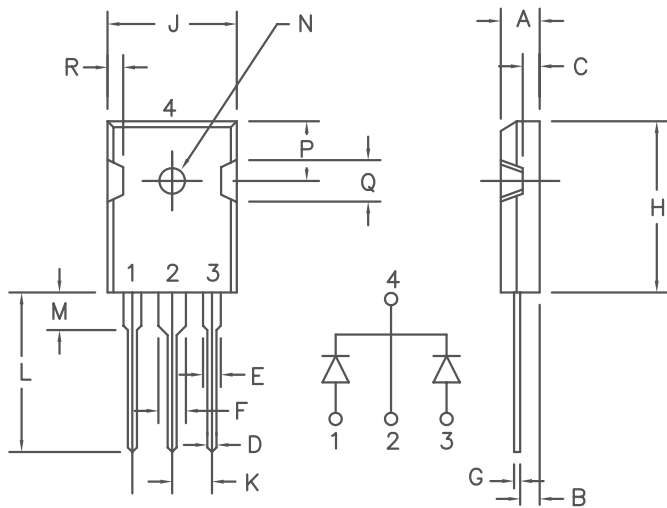


30Amp Schottky Barrier Rectifier FST30180 — FST30200



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
FST30180		180V	180V
FST30200		200V	200V

- Schottky Barrier Rectifier
- V_{RRM} 180 to 200 Volts
- 2x15 Amperes Avg.
- 175°C Junction temperature
- High surge capacity

Electrical Characteristics

Average Forward Current per pkg.	$I_F(AV)$ 30Amps	$T_C = 153^\circ C$, square wave
Average Forward Current per leg	$I_F(AV)$ 15Amps	$T_C = 153^\circ C$, square wave
Maximum Surge Current per leg	I_{FSM} 250 Amps	8.3ms, half sine, $T_J = 175^\circ C$
Max. Peak Forward Voltage per leg	V_{FM} 0.83 Volts	$I_{FM} = 15A$, $T_J = 25^\circ C^*$
Typical Peak Forward Voltage per leg	V_{FM} 0.62 Volts	$I_{FM} = 15A$, $T_J = 125^\circ C^*$
Typ. Peak Reverse Current per leg	I_{RM} 400 μA	V_{RRM} , $T_J = 125^\circ C^*$
Max. Peak Reverse Current per leg	I_{RM} 100 μA	V_{RRM} , $T_J = 25^\circ C$
Typical Junction Capacitance per leg	C_J 295 pF	$V_R = 5.0V$, $T_J = 25^\circ C$

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

Thermal and Mechanical Characteristics

Storage temp range	T_{STG}	$-55^\circ C$ to $175^\circ C$
Operating junction temp range	T_J	$-55^\circ C$ to $175^\circ C$
Max thermal resistance per leg	$R_{\theta JC}$	1.8°C/W junction to case
Max thermal resistance per pkg.	$R_{\theta JC}$	0.9°C/W junction to case
Typical thermal resistance (greased)	$R_{\theta CS}$	0.25°C/W junction to sink
Mounting Torque		8–12 inch pounds (#6 screw)
Weight		.22 ounces (6.36 grams) typical

FST30180— FST30200

Figure 1
Typical Forward Characteristics – Per Leg

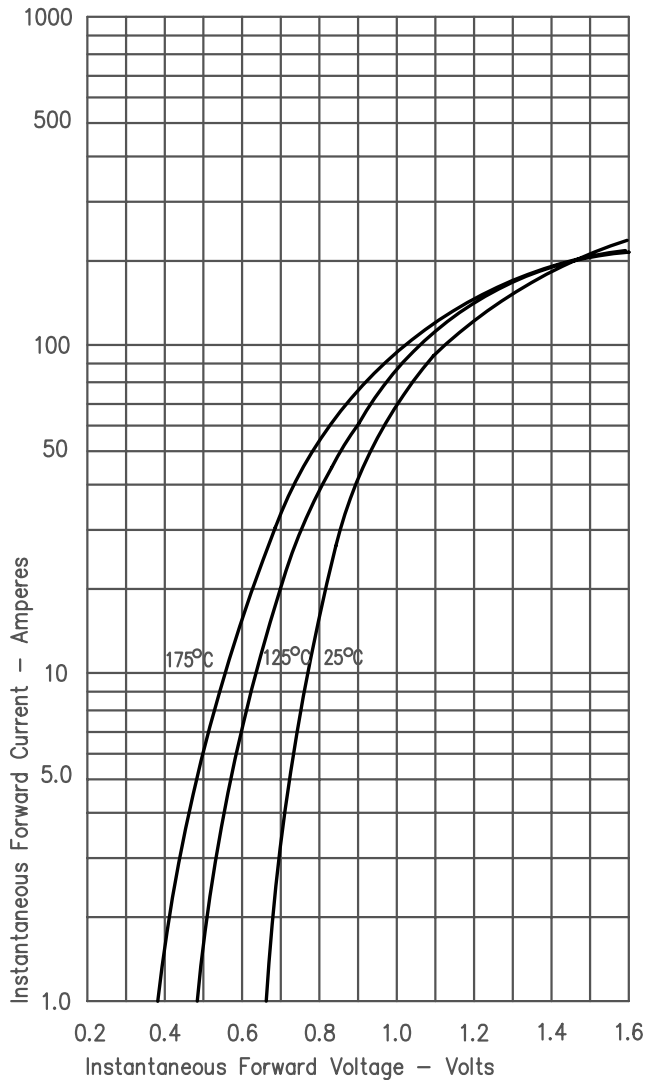


Figure 3
Typical Junction Capacitance – Per Leg

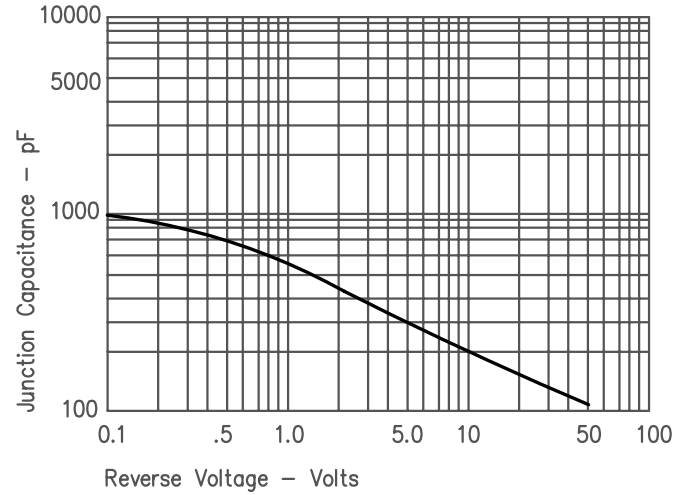


Figure 4
Forward Current Derating – Per Leg

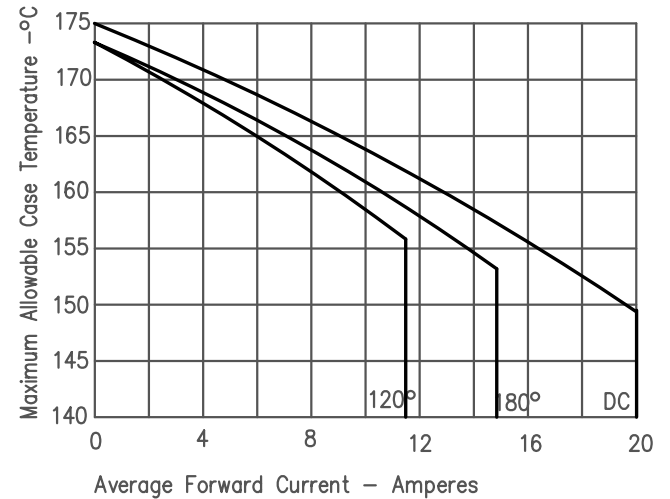


Figure 2
Typical Reverse Characteristics – Per Leg

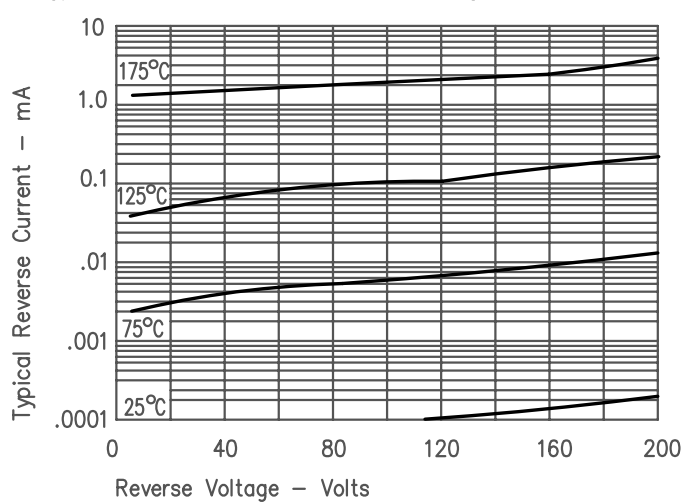


Figure 5
Maximum Forward Power Dissipation – Per Leg

