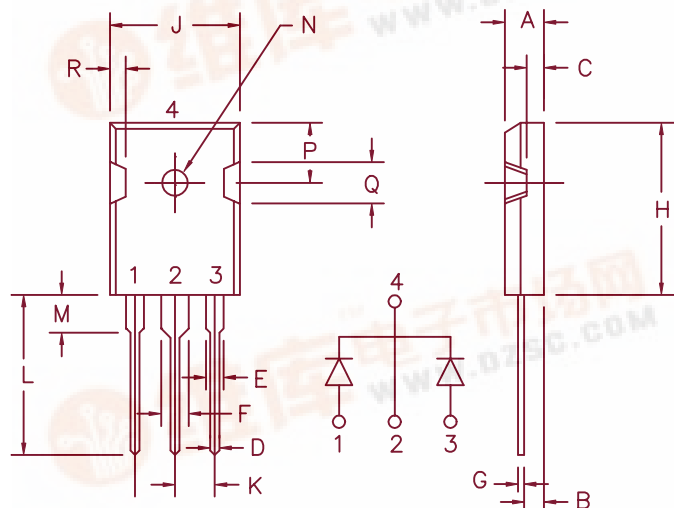


60 Amp Schottky Barrier Rectifier

FST5535 — FST5545



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

FST5535
FST5540
FST5545

Repetitive Peak
Reverse Voltage

35V
40V
45V

Transient Peak
Reverse Voltage

35V
40V
45V

- Schottky Barrier Rectifier
- Reverse energy tested
- Guard ring for reverse protection
- Low forward voltage
- 150°C junction temperature
- V_{RRM} 35 to 45 volts

Electrical Characteristics

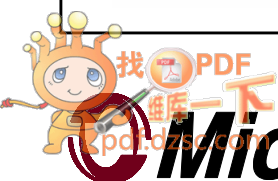
Average forward current per pkg $I_F(AV)$ 60 Amps
 Average forward current per leg $I_F(AV)$ 30 Amps
 Maximum surge current per leg I_{FSM} 400 Amps
 Max. peak forward voltage per leg V_{FM} .53 Volts
 Max. peak forward voltage per leg V_{FM} .60 Volts
 Max. peak reverse current per leg I_{RM} 1 Amp
 Max. peak reverse current per leg I_{RM} 2 mA
 Typical junction capacitance per leg C_J 1200 pF

$T_C = 99^\circ\text{C}$, square wave, $R_{\theta JC} = 0.8^\circ\text{C/W}$
 $T_C = 99^\circ\text{C}$, square wave, $R_{\theta JC} = 1.6^\circ\text{C/W}$
 8.3ms, half sine, $T_J = 150^\circ\text{C}$
 $I_{FM} = 30\text{A}$, $T_J = 150^\circ\text{C}^*$
 $I_{FM} = 30\text{A}$, $T_J = 25^\circ\text{C}^*$
 V_{RRM} , $T_J = 150^\circ\text{C}^*$
 V_{RRM} , $T_J = 25^\circ\text{C}$
 $VR = 5.0\text{V}$, $T_J = 25^\circ\text{C}$

*Pulse test: Pulse width 300 μsec . Duty Cycle 2%

Thermal and Mechanical Characteristics

Storage temp range T_{STG} -55°C to $+150^\circ\text{C}$
 Operating junction temp range T_J -55°C to $+150^\circ\text{C}$
 Max thermal resistance per leg $R_{\theta JC}$ 1.6°C/W Junction to case
 Max thermal resistance per pkg $R_{\theta JC}$ 0.8°C/W Junction to case
 Weight .22 ounces (6.36 grams) typical



COLORADO

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2-4-00 Rev. 1

FST5535— FST5545

Figure 1
Typical Forward Characteristics – Per Leg

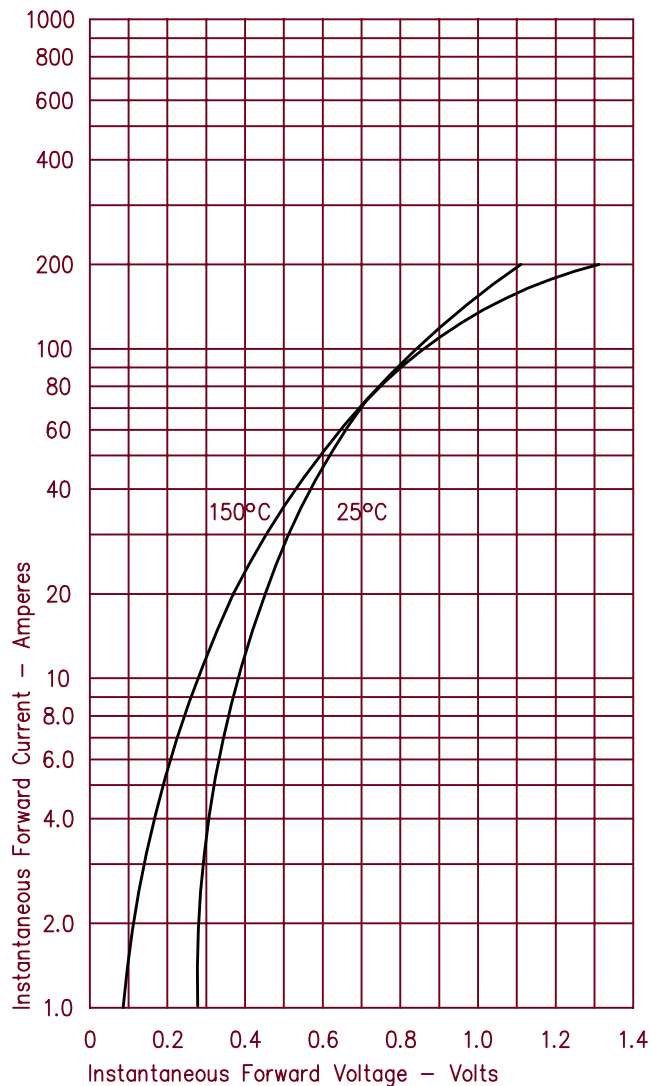


Figure 3
Typical Junction Capacitance – Per Leg

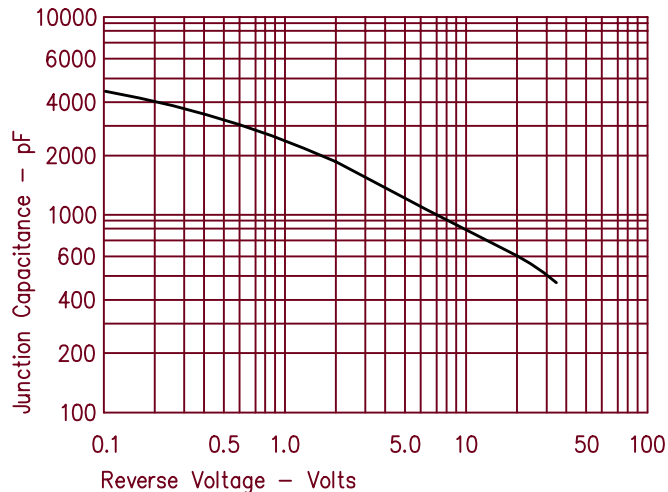


Figure 4
Forward Current Derating – Per Leg

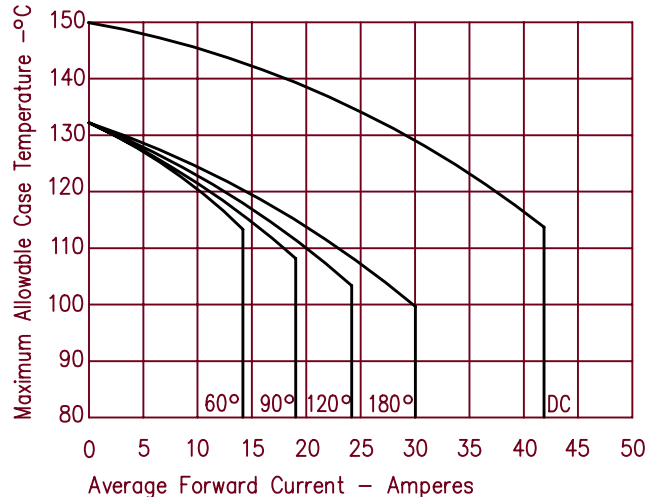


Figure 2
Typical Reverse Characteristics – Per Leg

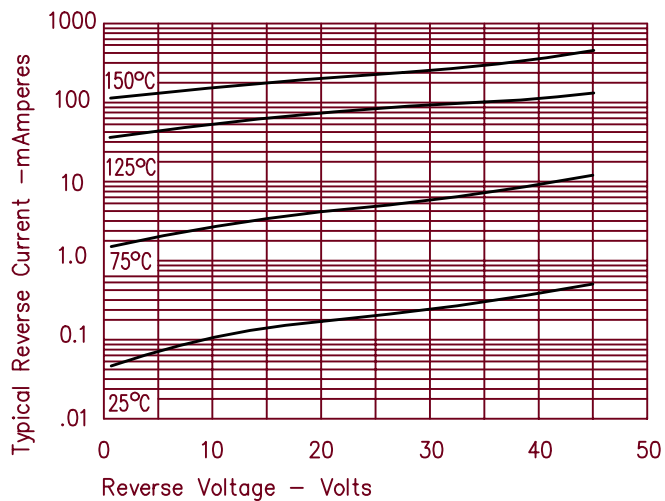


Figure 5
Maximum Forward Power Dissipation – Per Leg

