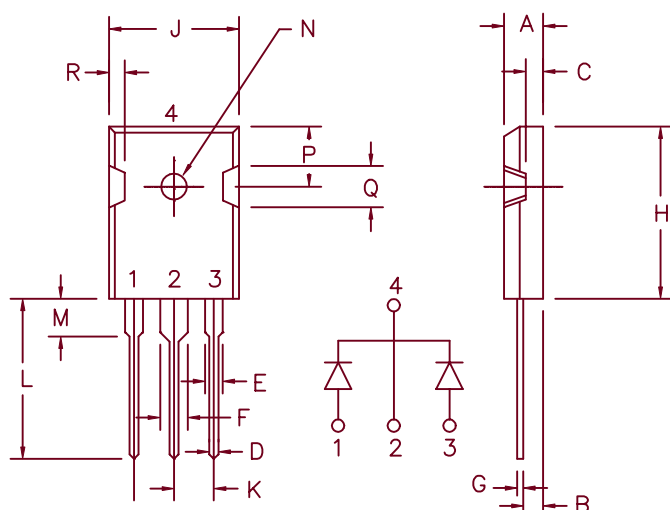


40 Amp Schottky Barrier Rectifier FST4035 — FST4045



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

FST4035
FST4040
FST4045

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
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

$I_{F(AV)}$ 40 Amps
 $I_{F(AV)}$ 20 Amps
 I_{FSM} 400 Amps
 V_{FM} .48 Volts
 V_{FM} .55 Volts
 I_{RM} 1 Amp
 I_{RM} 2 mA
 C_j 1200 pF

$T_C = 104^\circ\text{C}$, square wave, $R_{\theta JC} = 1.0^\circ\text{C/W}$
 $T_C = 104^\circ\text{C}$, square wave, $R_{\theta JC} = 2.0^\circ\text{C/W}$
8.3ms, half sine, $T_J = 150^\circ\text{C}$
 $I_{FM} = 20\text{A}$, $T_J = 150^\circ\text{C}^*$
 $I_{FM} = 20\text{A}$, $T_J = 25^\circ\text{C}^*$
 V_{RRM} , $T_J = 150^\circ\text{C}^*$
 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 μsec . Duty Cycle 2%

Thermal and Mechanical Characteristics

Storage temp range
Operating junction temp range
Max thermal resistance per leg
Max thermal resistance per pkg
Weight

T_{STG}
 T_J
 $R_{\theta JC}$
 $R_{\theta JC}$

-55°C to $+150^\circ\text{C}$
 -55°C to $+150^\circ\text{C}$
 2.0°C/W Junction to case
 1.0°C/W Junction to case
.22 ounces (6.36 grams) typical

FST4035 — FST4045

Figure 1
Typical Forward Characteristics — Per Leg

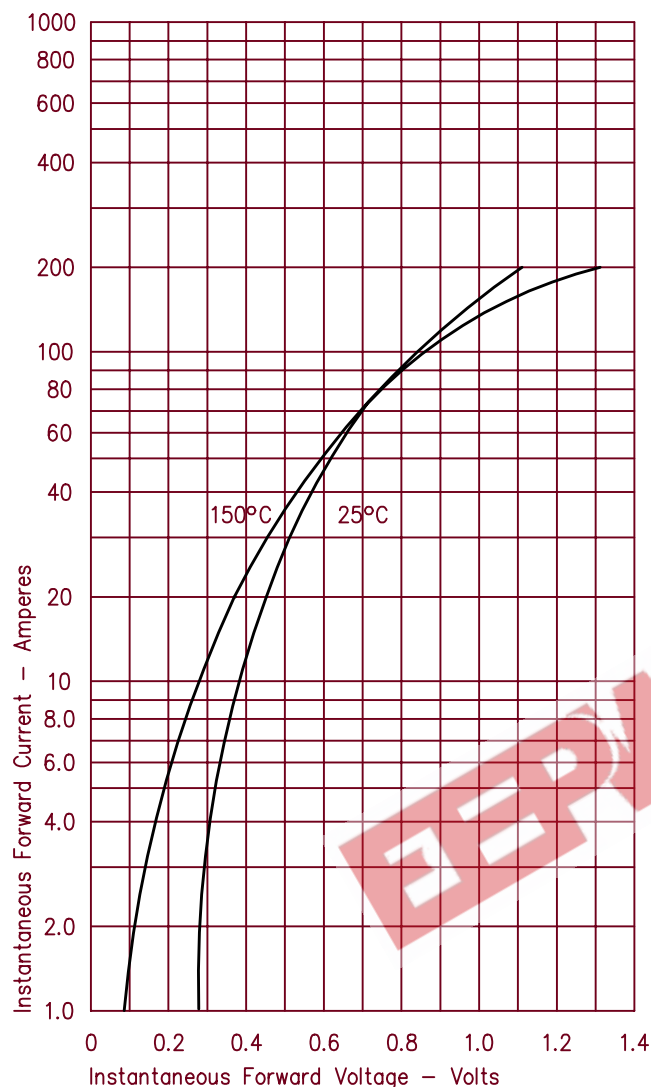


Figure 3
Typical Junction Capacitance — Per Leg

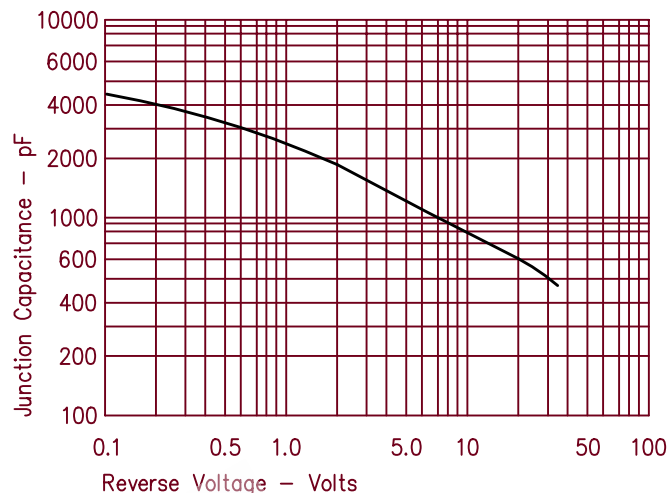


Figure 4
Forward Current Derating — Per Leg

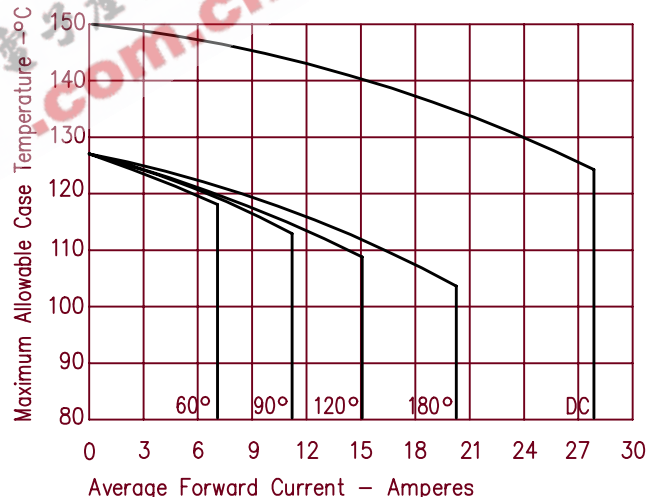


Figure 2
Typical Reverse Characteristics — Per Leg

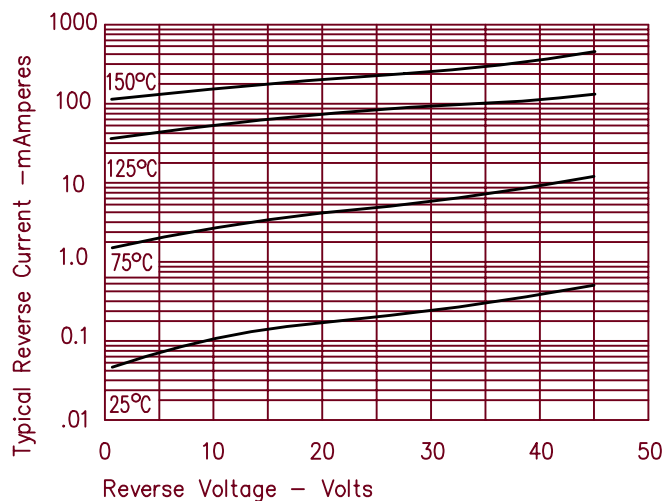


Figure 5
Maximum Forward Power Dissipation — Per Leg

