Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!

Contact us

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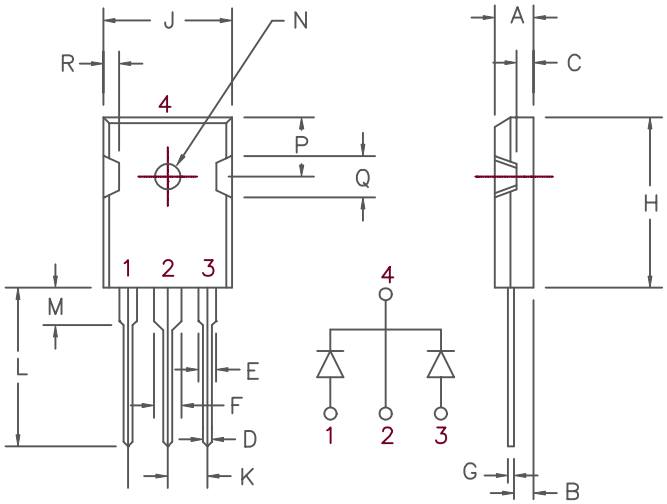
Email & Skype: info@chipsmall.com Web: www.chipsmall.com
Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China

50Amp Schottky Rectifier

FST5080 – FST50100



Similar to TO–247AD

Dim.	Inches		Millimeter		
	Minimum	Maximum	Minimum	Maximum	Notes
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
FST5080	40CPQ080 MBR4080WT MBR5080WT	80V	80V
FST5090		90V	90V
FST50100	40CPQ100 63CPQ100 MBR40100WT MBR50100WT	100V	100V

- Guard ring for reverse protection
- Low power loss, high efficiency
- High surge capacity
- 175°C Junction Temperature
- V_{RRM} 80 to 100 Volts

Electrical Characteristics

Average Forward Current per pkg.	$I_{F(AV)}$ 50 Amps	T_C = 129°C, Square wave, $R_{\theta JC}$ = 1.0°C/W
Average Forward Current per leg	$I_{F(AV)}$ 25 Amps	T_C = 129°C, Square wave, $R_{\theta JC}$ = 2.0°C/W
Maximum Surge Current per leg	I_{FSM} 400 Amps	8.3ms, half sine, T_J = 175°C
Max. Peak Forward Voltage per leg	V_{FM} .62 Volts	I_{FM} = 25A, T_J = 175°C*
Max. Peak Forward Voltage per leg	V_{FM} .85 Volts	I_{FM} = 25A, T_J = 25°C*
Max. Peak Reverse Current per leg	I_{RM} 15 mA	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 920 pF	V_R = 5.0V, T_J = 25°C

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

Thermal and Mechanical Characteristics

Storage temp range	T_{STG}	−55°C to +175°C
Operating junction temp range	T_J	−55°C to +175°C
Max thermal resistance per leg	$R_{\theta JC}$	2.0°C/W
Max thermal resistance per pkg.	$R_{\theta JC}$	1.0°C/W
Mounting Torque		5–10 inch pounds (#6 screw)
Weight		.22 ounces (6.36 grams) typical

COLORADO Microsemi
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Broomfield, CO. 80020
PH: (303) 469–2161
FAX: (303) 466–3775
www.microsemi.com

10–15–01 Rev. 4

FST5080 – FST50100

Figure 1
Typical Forward Characteristics – Per Leg

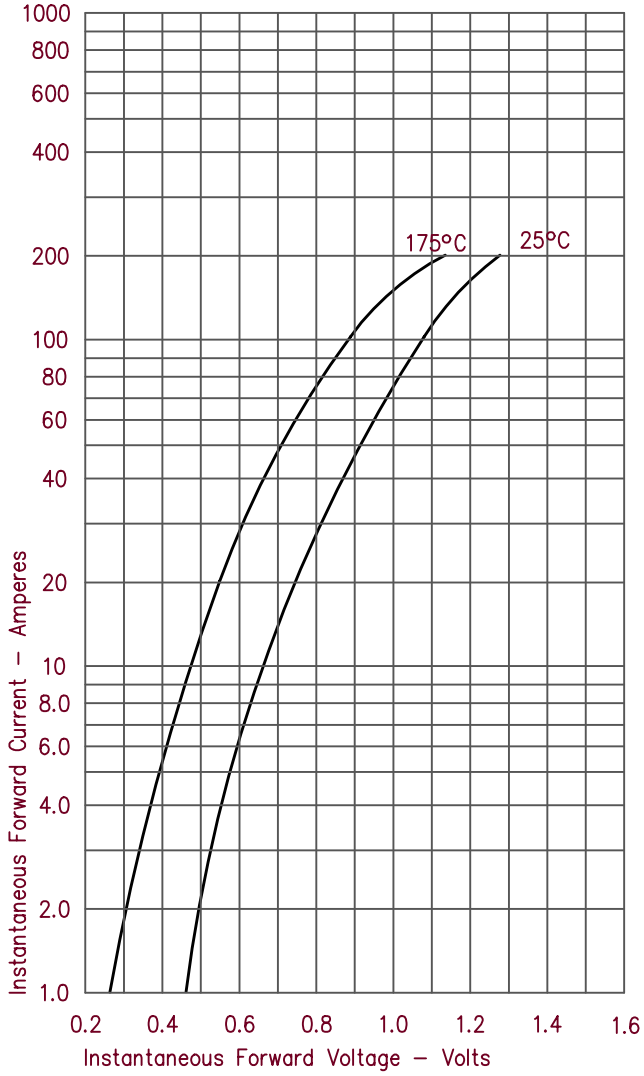

Figure 2
Typical Reverse Characteristics – Per Leg

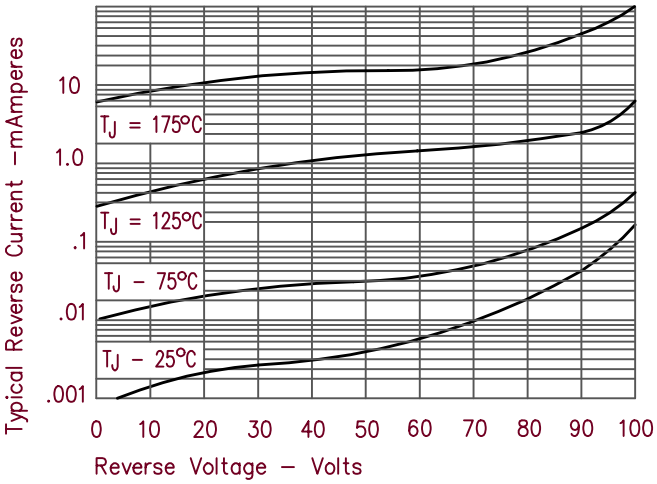

Figure 3
Typical Junction Capacitance – Per Leg

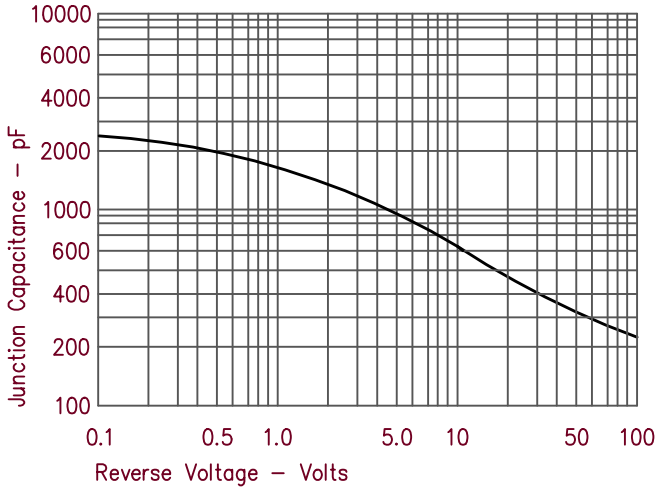

Figure 4
Forward Current Derating – Per Leg

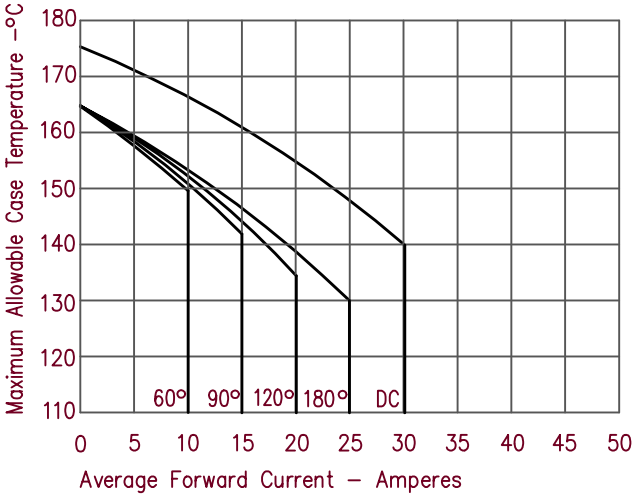

Figure 5
Maximum Forward Power Dissipation – Per Leg