



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

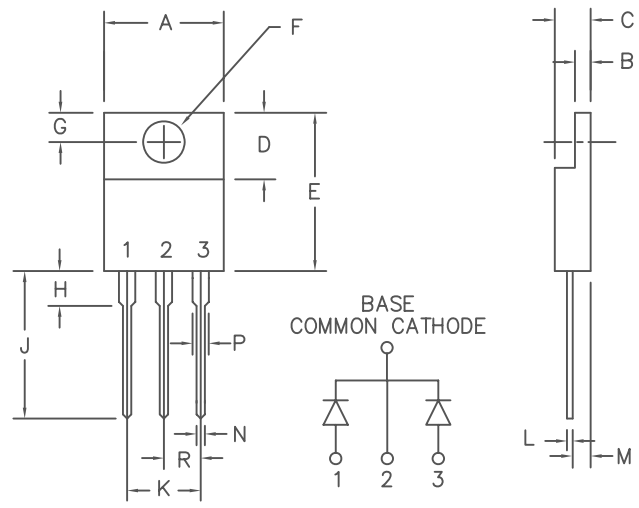
Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



30 Amp Schottky Rectifiers FST31180 — FST31200



Dim.	Inches		Millimeter		Notes
	Minimum	Maximum	Minimum	Maximum	
A	.390	.415	9.91	10.54	
B	.045	.055	1.14	1.40	
C	.180	.190	4.57	4.83	
D	.245	.260	6.22	6.60	
E	.550	.650	13.97	16.51	
F	.139	.161	3.53	4.09	Dia.
G	.100	.135	2.54	3.43	
H	---	.250	---	6.35	
J	.500	.580	12.70	14.73	
K	.190	.210	4.83	5.33	
L	.014	.022	.357	.559	
M	.080	.115	2.03	2.92	
N	.015	.040	.380	1.02	
P	.045	.070	1.14	1.78	
R	.090	.110	2.29	2.79	

PLASTIC TO-220AB

Microsemi Catalog Number	Industry Part Number	Repetitive Peak Reverse Voltage	Transient Peak Reverse Voltage
FST31180		180V	180V
FST31200		200V	200V

- Schottky barrier rectifier
- Guard ring for reverse protection
- Reverse energy tested
- High surge capacity
- V_{RRM} 180 to 200 Volts

Electrical Characteristics

Average Forward Current per pkg.	$I_{F(AV)}$ 30 Amps	$T_C = 150^\circ\text{C}$, Square wave, $R_{\theta JC} = 1.0^\circ\text{C/W}$
Average Forward Current per leg	$I_{F(AV)}$ 15 Amps	$T_C = 150^\circ\text{C}$, Square wave, $R_{\theta JC} = 2.0^\circ\text{C/W}$
Maximum Surge Current per leg	I_{FSM} 250 Amps	8.3ms, half sine, $T_J = 175^\circ\text{C}$
Typ. Peak Forward Voltage per leg	V_{FM} 0.62 Volts	$I_{FM} = 15\text{A}$, $T_J = 175^\circ\text{C}^*$
Max. Peak Forward Voltage per leg	V_{FM} 0.83 Volts	$I_{FM} = 15\text{A}$, $T_J = 25^\circ\text{C}^*$
Typ. Peak Reverse Current per leg	I_{RM} 400 μA	V_{RRM} , $T_J = 125^\circ\text{C}^*$
Max. Peak Reverse Current per leg	I_{RM} 100 μA	V_{RRM} , $T_J = 25^\circ\text{C}$
Typical junction capacitance	C_J 295pF	$V_R = 5.0\text{V}$, $T_J = 25^\circ\text{C}$

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

Thermal and Mechanical Characteristics

Storage temp range	TSTG	-55 $^\circ\text{C}$ to + 175 $^\circ\text{C}$
Operating junction temp range	T_J	-55 $^\circ\text{C}$ to + 175 $^\circ\text{C}$
Max thermal resistance per leg	$R_{\theta JC}$	2.0 $^\circ\text{C/W}$ Junction to case
Max thermal resistance per pkg.	$R_{\theta JC}$	1.0 $^\circ\text{C/W}$ Junction to case
Mounting torque		15 inch pounds maximum (6-32 screw)
Weight		.06 ounces (1.8 grams) typical



SCOTTSDALE

8700 East Thomas Road, P.O. Box 1390
Scottsdale, AZ 85252
PH: (480) 941-6300
FAX: (480) 947-1503
www.microsemi.com

05-18-07 Rev. 3

FST31180 — FST31200

Figure 1
Typical Forward Characteristics – Per Leg

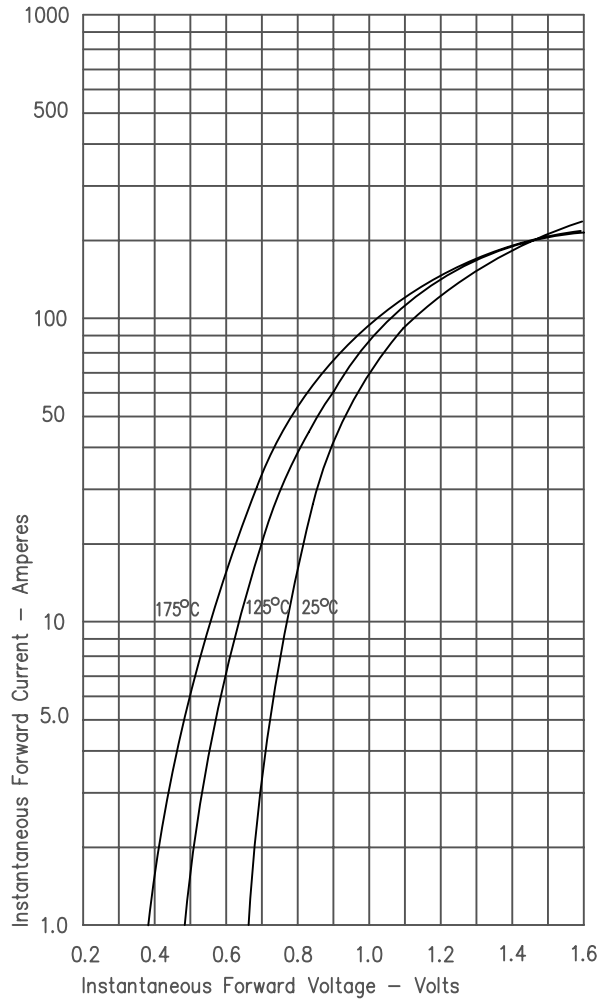


Figure 3
Typical Junction Capacitance – Per Leg

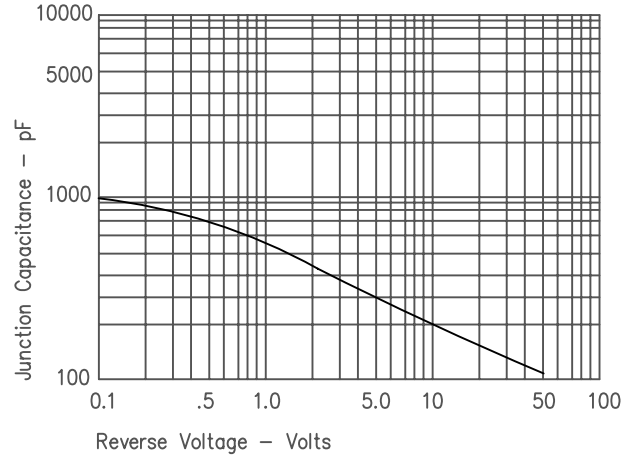


Figure 4
Forward Current Derating – Per Leg

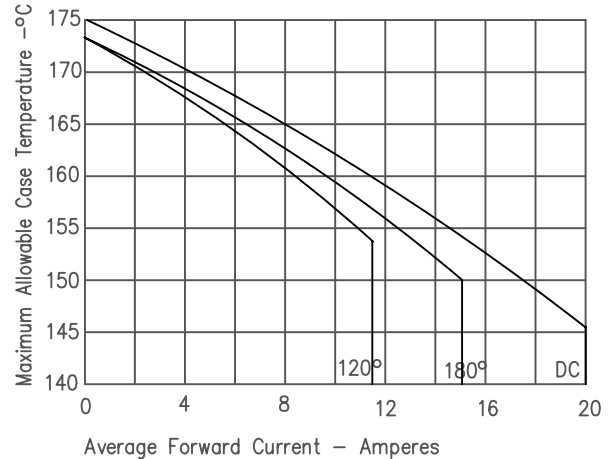


Figure 2
Typical Reverse Characteristics – Per Leg

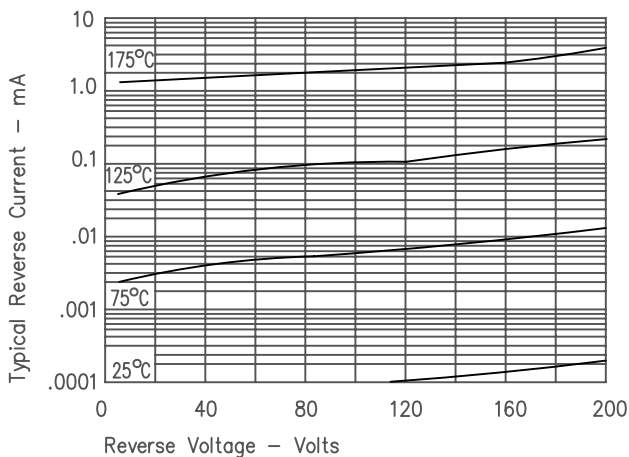


Figure 5
Maximum Forward Power Dissipation – Per Leg

