Features

- Halogen Free Available Upon Request By Adding Suffix "-HF"
- Super Fast Recovery Time
- Glass Passivated Chip Junction
- Epoxy Meets UL 94 V-0 Flammability Rating
- Lead Free Finish/RoHS Compliant (Note 1)("P" Suffix Designates RoHS Compliant. See Ordering Information)

1 Amp Super Fast Recovery Rectifier 50 to 600 Volts

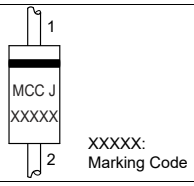
Maximum Ratings @ 25°C (Unless Otherwise Specified)

Parameter	Symbol	Value							Unit
		SF 11G	SF 12G	SF 13G	SF 14G	SF 15G	SF 16G	SF 18G	
Peak Repetitive Reverse Voltage	V_{RRM}	50	100	150	200	300	400	600	V
Working Peak Reverse Voltage	V_{RWM}								
DC Blocking Voltage	V_R								
RMS Reverse Voltage	V_{RMS}	35	70	105	140	210	280	420	V
Average Rectified Forward Current @ See Fig.1	$I_{F(AV)}$	1							A
Non-Repetitive Peak Surge Current @ 8.3ms Half Sine Wave	I_{FSM}	30							A
Non-Repetitive Peak Surge Current @ 1ms Square Wave		60							
Current Squared Time @1ms≤t≤8.3ms	I^2t	3.735							A^2s

Marking code

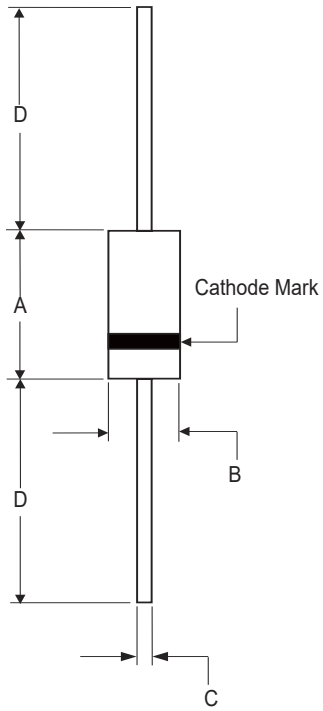
Part Number	Marking code
SF11G	SF11G
SF12G	SF12G
SF13G	SF13G
SF14G	SF14G
SF15G	SF15G
SF16G	SF16G
SF18G	SF18G

Internal Structure

Pin	Description	Simplified outline	Graphic symbol
1	Cathode		
2	Anode		

Note: 1. High Temperature Solder Exemption Applied, see EU Directive Annex 7a.

DO-41



DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.160	0.205	4.10	5.20	
B	0.080	0.107	2.00	2.70	Φ
C	0.028	0.035	0.71	0.90	Φ
D	1.000	-----	25.40	-----	

Thermal characteristics

Symbol	Parameter	Conditions	Min	Typ	Max	Unit
T_J	Operating Junction Temperature Range		-55		150	°C
T_{stg}	Storage Temperature Range		-55		150	°C
$Rth_{(J-L)}$	Thermal Resistance from Junction to Lead			20		°C/W
$Rth_{(J-A)}$	Thermal Resistance from Junction to Ambient			80		°C/W

Electrical Characteristics @ 25°C Unless Otherwise Specified

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Forward Voltage SF11G~SF14G SF15G~SF16G SF18G	V_F	I_F=1A;T_J=25°C			 0.95 1.30 1.70	V
Reverse Current	I_R	at Rated V_R;T_J=25°C at Rated V_R;T_J=125°C			5 100	μA
Reverse Recovery Time	t_{rr}	I_F=0.5A; I_R=1.0A; I_{rr}=0.25A;T_J=25°C			35	ns
Junction Capacitance SF11G~SF14G SF15G~SF16G SF18G	C_J	V_R=4V;f=1MHz;T_J=25°C		 20 12 8		pF

Curve Characteristics

Fig. 1 - Forward Current Derating Curve

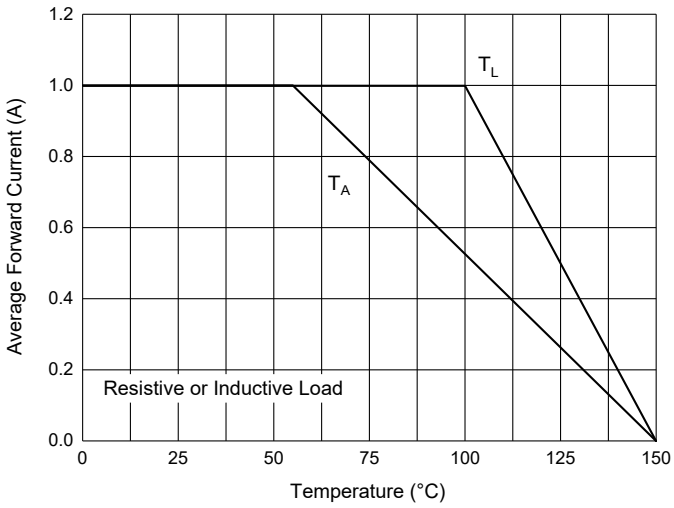


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

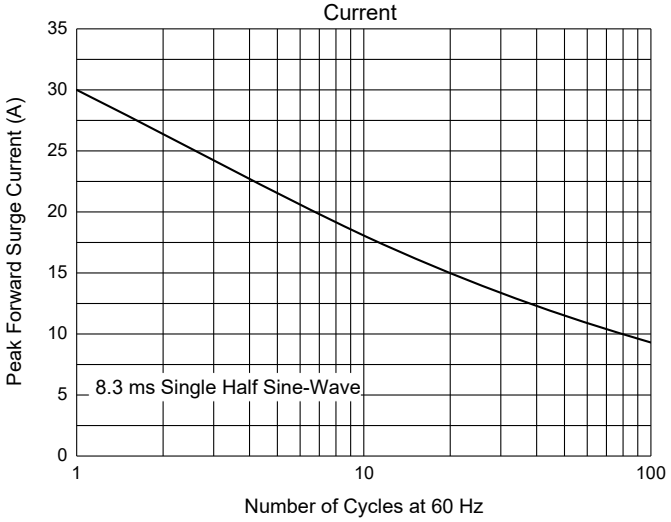


Fig. 3 - Typical Forward Characteristics

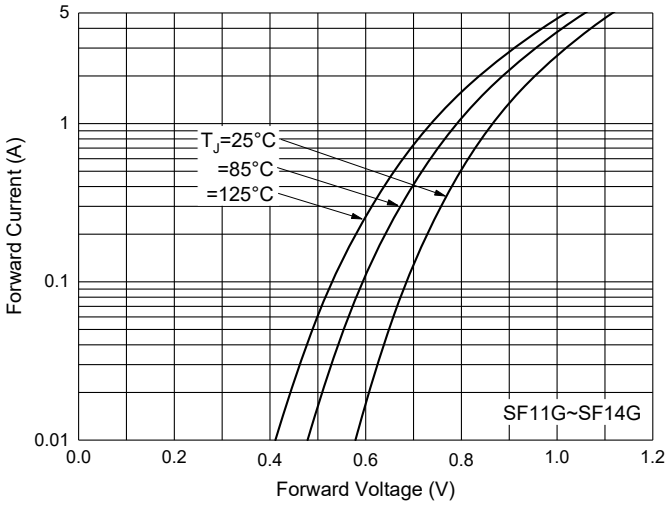


Fig. 4 - Typical Forward Characteristics

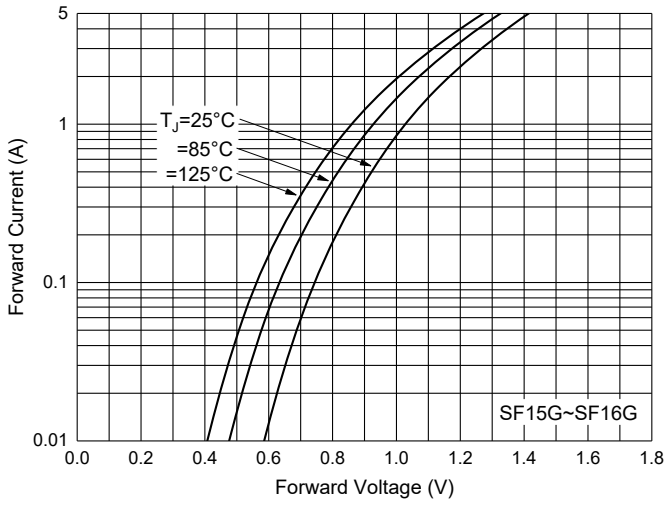


Fig. 5 - Typical Forward Characteristics

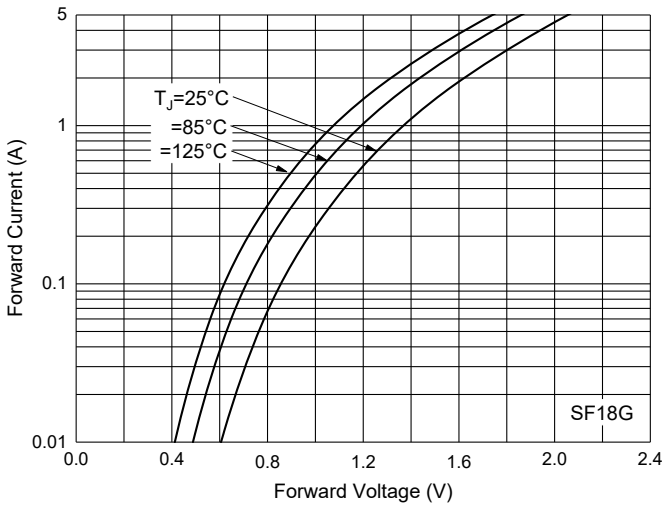
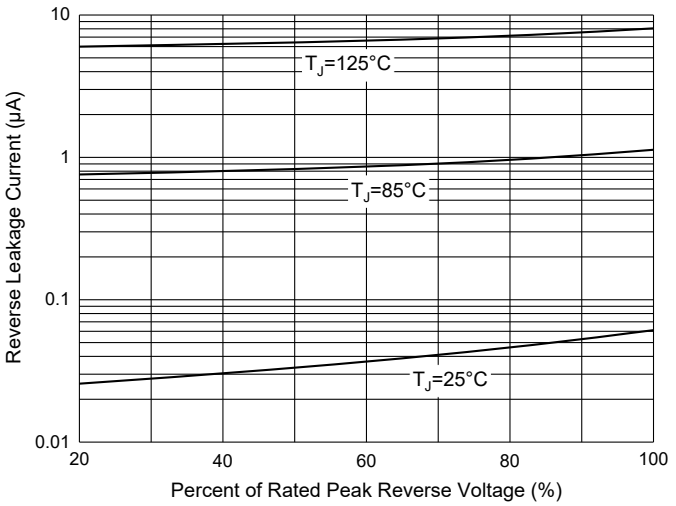
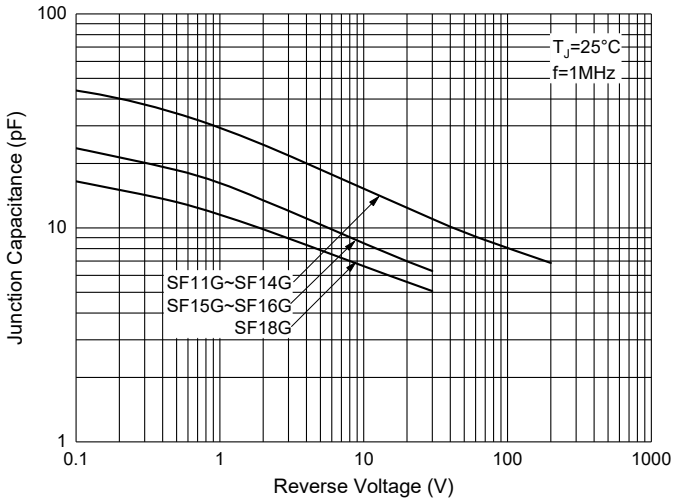


Fig. 6 - Typical Reverse Leakage Characteristics



Curve Characteristics

Fig. 7 - Typical Capacitance Characteristics



Ordering Information

Device	Packing
Part Number-TP	Tape&Reel:5Kpcs/Reel
Part Number-AP	Ammo Packing: 5Kpcs/Ammo Box
Part Number-BP	Bulk:1Kpcs/Box,50Kpcs/Carton

Note : Adding "-HF" Suffix For Halogen Free, eg. Part Number-TP-HF

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