

## Features

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

## Maximum Ratings

- Operating Junction Temperature Range: -55°C to +150°C
- Storage Temperature Range: -55°C to +150°C
- Typical Thermal Resistance: 80°C/W Junction to Ambient
- Typical Thermal Resistance: 20°C/W Junction to Lead

MCC Part Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
SF11G	SF11G	50V	35V	50V
SF12G	SF12G	100V	70V	100V
SF13G	SF13G	150V	105V	150V
SF14G	SF14G	200V	140V	200V
SF15G	SF15G	300V	210V	300V
SF16G	SF16G	400V	280V	400V
SF18G	SF18G	600V	420V	600V

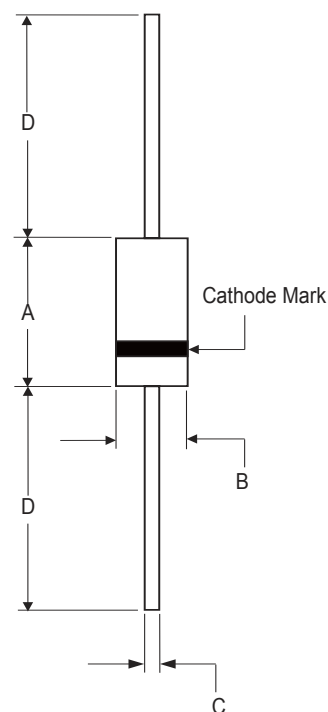
## Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	1.0A	See Fig.1
Peak Forward Surge Current	$I_{FSM}$	30A	8.3ms, Half Sine
Maximum Instantaneous Forward Voltage SF11G-SF14G SF15G-SF16G SF18G	$V_F$	0.95V 1.3V 1.7V	$I_{FM}=1.0A;$
Maximum DC Reverse Current At Rated DC Blocking Voltage	$I_R$	5.0 $\mu$ A 100 $\mu$ A	$T_J=25^\circ C;$ $T_J=125^\circ C$
Maximum Reverse Recovery Time	$t_{rr}$	35ns	$I_F=0.5A; I_R=1.0A;$ $I_{RR}=0.25A$
Typical Junction Capacitance SF11G-SF14G SF15G-SF18G	$C_J$	20pF 10pF	Measured at 1.0MHz $V_R=4.0V$

Note:1. High Temperature Solder Exemptions Applied, See EU Directive Annex 7a.

# 1.0 Amp Glass Passivated Super Fast Recovery Rectifier 50 to 600 Volts

## DO-41



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

## Curve Characteristics

Fig. 1 - Forward Current Derating Curve

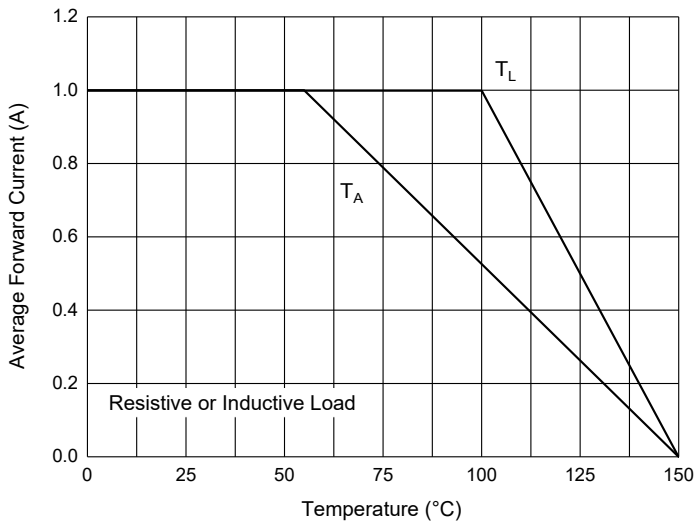


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

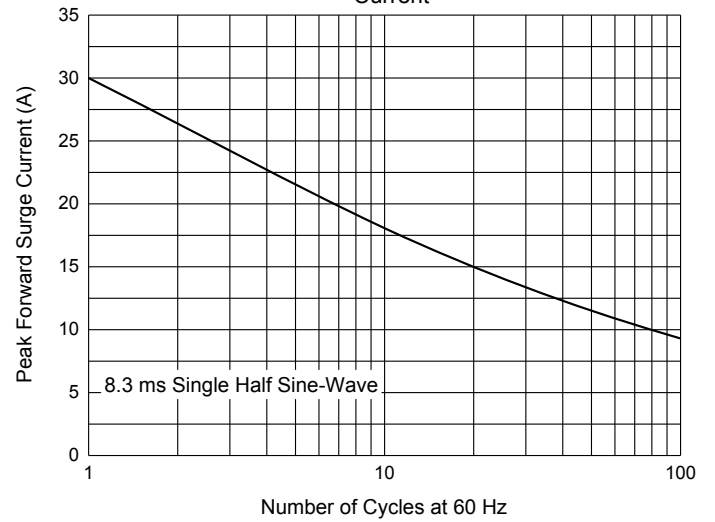


Fig. 3 - Typical Instantaneous Forward Characteristics

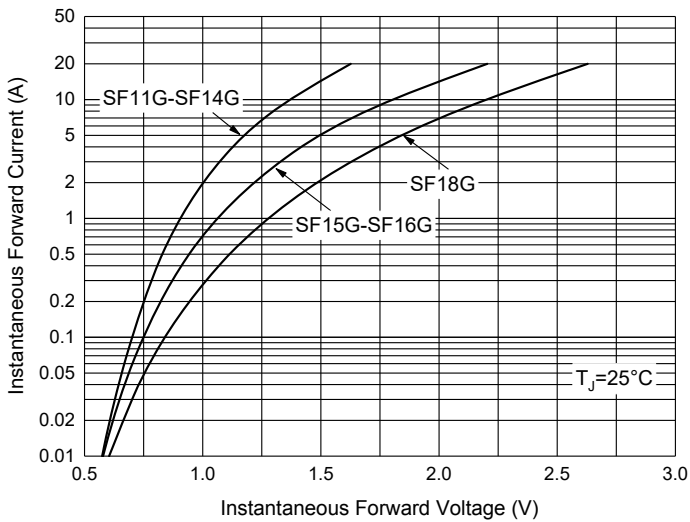
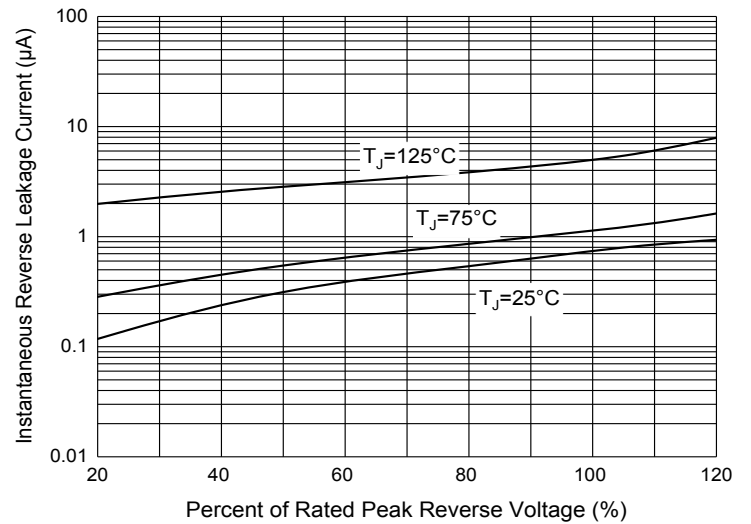


Fig. 4 - Typical Reverse Leakage Characteristics



## 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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