5 Amp High Efficiency Glass Passivated Rectifier 50 to 600 Volts

Features

- Lead Free Finish/RoHS Compliant (Note1) ("P"Suffix Designates Compliant. See Ordering Information)
- Epoxy Meets UL 94 V-0 Flammability Rating
- Low Leakage And Low Power Loss
- Super Fast Switching Speed And High Current Capability
- Halogen Free Available Upon Request By Adding Suffix "-HF"

Maximum Ratings

- Operating Junction Temperature Range: -65ºC to +150ºC
- Storage Temperature Range: -65ºC to +150ºC
- Typical Thermal Resistance: 20°C/W Junction to Ambient

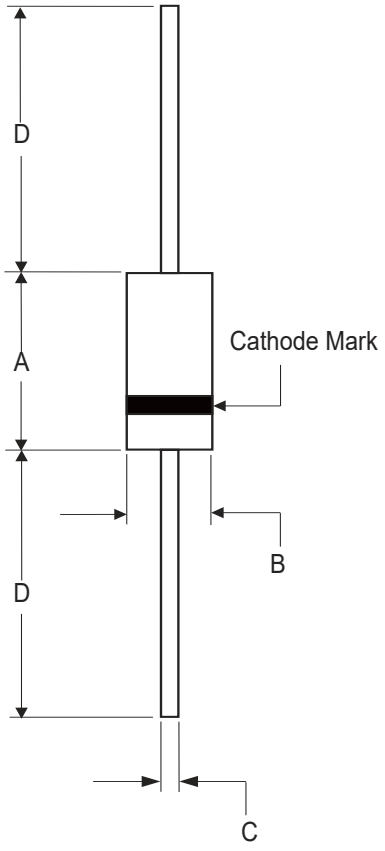
MCC Part Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
SF51G	SF51GP	50V	35V	50V
SF52G	SF52GP	100V	70V	100V
SF54G	SF54GP	200V	140V	200V
SF55G	SF55GP	300V	210V	300V
SF56G	SF56GP	400V	280V	400V
SF58G	SF58GP	600V	420V	600V

Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	5.0A	T_A=55ºC
Peak Forward Surge Current	I_{FSM}	150A	8.3ms,Half Sine
Maximum Instantaneous Forward Voltage SF51G-SF54G SF55G-SF56G SF58G	V_F	 0.95V 1.27V 1.75V	 I_{FM}=5.0A; T_J=25ºC
Maximum DC Reverse Current At Rated DC Blocking Voltage	I_R	5.0μA 150μA	T_J=25ºC; T_J=125ºC
Maximum Reverse Recovery Time	t_{rr}	35ns	I_F=0.5A; I_R=1.0A; Irr=0.25A
Typical Junction Capacitance SF51G-SF54G SF55G-SF58G	C_J	 50pF 30pF	 Measured at 1.0MHz, V_R=4.0V

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

DO-201AD



DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.287	0.374	7.30	9.50	
B	0.189	0.208	4.80	5.30	
C	0.048	0.052	1.20	1.30	
D	1.000	-----	25.40	-----	

Curve Characteristics

Fig. 1 - Forward Current Derating Curve

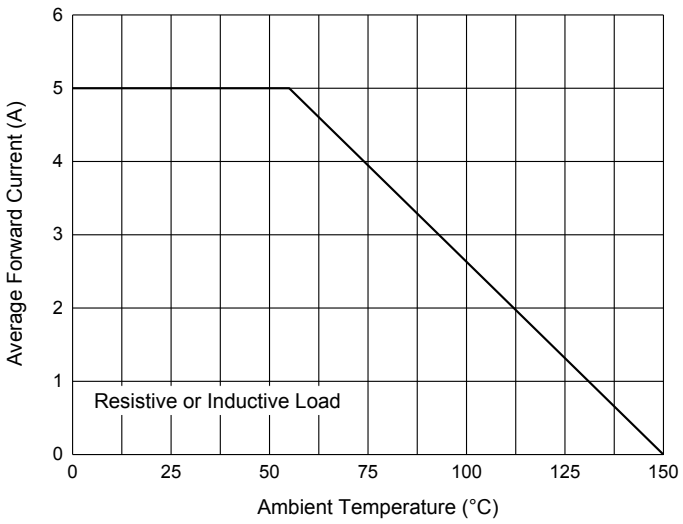


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

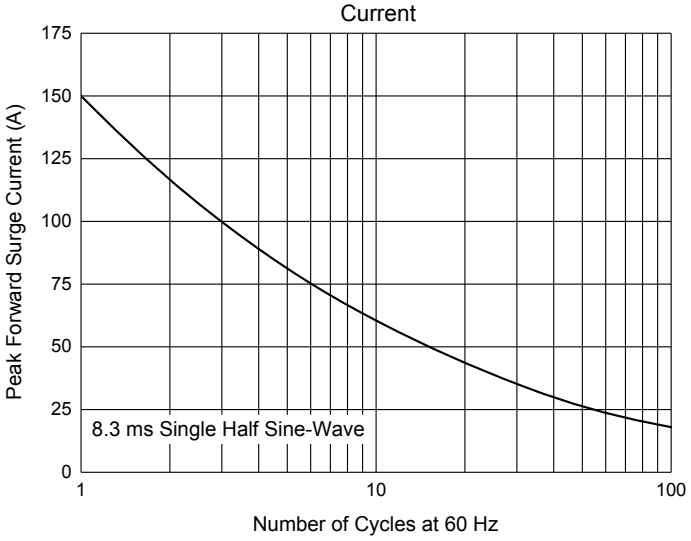


Fig. 3 - Typical Instantaneous Forward Characteristics

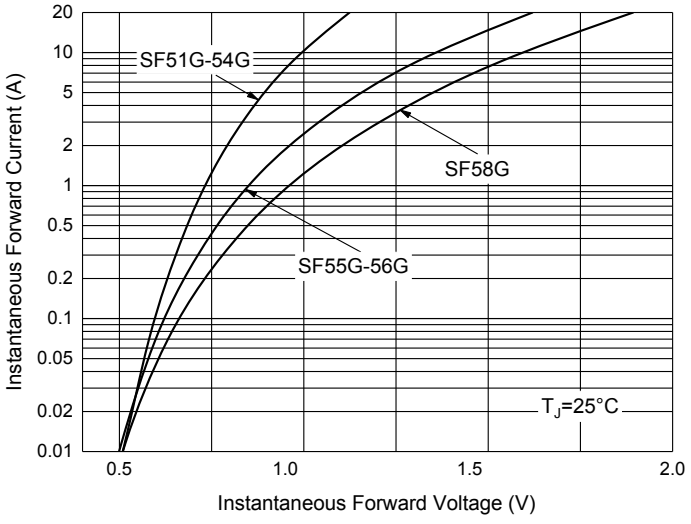
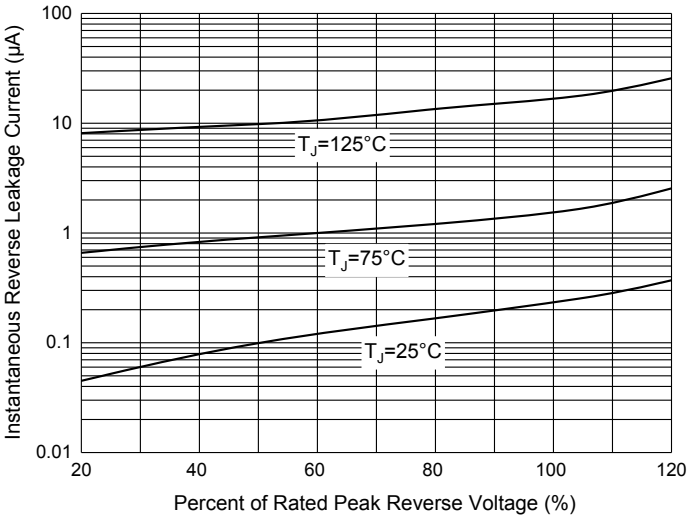


Fig. 4 - Typical Reverse Leakage Characteristics



Ordering Information

Device	Packing
Part Number-TP	Tape&Reel: 1.2Kpcs/Reel
Part Number-AP	Ammo Packing: 1.2Kpcs/Ammo Box
Part Number-BP	Bulk:500pcs/Box,12Kpcs/Carton

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

*****IMPORTANT NOTICE*****

Micro Commercial Components Corp. reserves the right to make changes without further notice to any product herein to make corrections, modifications , enhancements , improvements , or other changes . ***Micro Commercial Components Corp*** . does not assume any liability arising out of the application or use of any product described herein; neither does it convey any license under its patent rights ,nor the rights of others . The user of products in such applications shall assume all risks of such use and will agree to hold ***Micro Commercial Components Corp*** . and all the companies whose products are represented on our website, harmless against all damages. ***Micro Commercial Components Corp***. products are sold subject to the general terms and conditions of commercial sale, as published at
https://www.mccsemi.com/Home/TermsAndConditions.

*****LIFE SUPPORT*****

MCC's products are not authorized for use as critical components in life support devices or systems without the express written approval of Micro Commercial Components Corporation.

*****CUSTOMER AWARENESS*****

Counterfeiting of semiconductor parts is a growing problem in the industry. Micro Commercial Components (MCC) is taking strong measures to protect ourselves and our customers from the proliferation of counterfeit parts. MCC strongly encourages customers to purchase MCC parts either directly from MCC or from Authorized MCC Distributors who are listed by country on our web page cited below. Products customers buy either from MCC directly or from Authorized MCC Distributors are genuine parts, have full traceability, meet MCC's quality standards for handling and storage. **MCC will not provide any warranty coverage or other assistance for parts bought from Unauthorized Sources**. MCC is committed to combat this global problem and encourage our customers to do their part in stopping this practice by buying direct or from authorized distributors.