

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

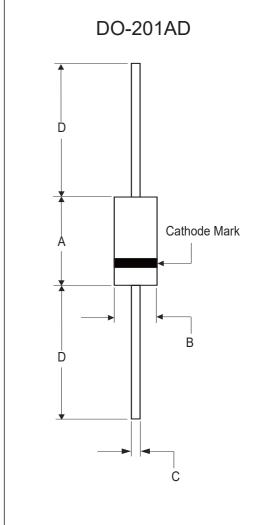
MCC Part Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
SF51G	SF51GP	50V	35V	50V
SF52G	SF52GP	100V	70V	100V
SF54G	SF54GP	200V	140V	200V
SF55G	SF55GP	300V	210V	300V
SF56G	SF56GP	400V	280V	400V
SF58G	SF58GP	600V	420V	600V

# Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	I <sub>F(AV)</sub>	5.0A	T <sub>A</sub> =55°C
Peak Forward Surge Current	I <sub>FSM</sub>	150A	8.3ms,Half Sine
Maximum Instantaneous Forward Voltage SF51G-SF54G SF55G-SF56G SF58G	V <sub>F</sub>	0.95V 1.27V 1.75V	I <sub>FM</sub> =5.0A; T <sub>J</sub> =25°C
Maximum DC Reverse Current At Rated DC Blocking Voltage	I <sub>R</sub>	5.0μA 150μA	T <sub>J</sub> =25°C; T <sub>J</sub> =125°C
Maximum Reverse Recovery Time	t <sub>rr</sub>	35ns	I <sub>F</sub> =0.5A; I <sub>R</sub> =1.0A; Irr=0.25A
Typical Junction Capacitance SF51G-SF54G SF55G-SF58G	Сл	50pF 30pF	Measured at 1.0MHz, V <sub>R</sub> =4.0V

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

# 5 Amp High Efficiency Glass Passivated Rectifier 50 to 600 Volts



DIMENSIONS						
DIM	INCHES		MM		NOTE	
	MIN	MAX	MIN	MAX	NOTE	
Α	0.287	0.374	7.30	9.50		
В	0.189	0.208	4.80	5.30		
С	0.048	0.052	1.20	1.30		
D	1.000		25.40			



## **Curve Characteristics**

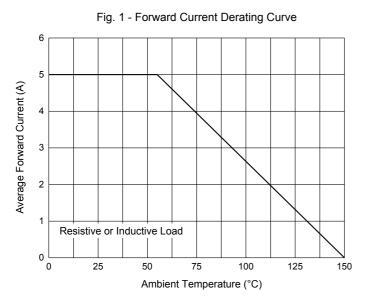


Fig. 3 - Typical Instantaneous Forward Characteristics

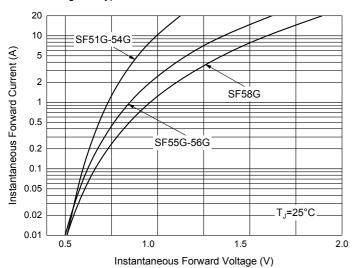
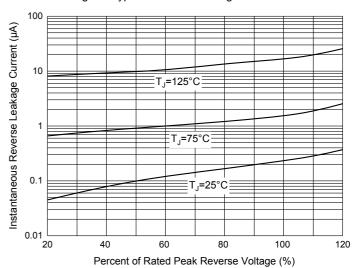


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge
Current

175
150
150
100
100
25
8.3 ms Single Half Sine-Wave
0
1 10 100
Number of Cycles at 60 Hz

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

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