

Features

- Halogen Free Available Upon Request By Adding Suffix "-HF"
- Epoxy Meets UL 94 V-0 Flammability Rating
- Moisture Sensitivity Level 1
- Glass Passivated Junction
- Fast Switching Speed For High Efficiency
- Lead Free Finish/RoHS Compliant(Note 1)("P" Suffix Designates Compliant. See Ordering Information)

Maximum Ratings

- Operating Junction Temperature Range: -55°C to +150°C
- Storage Temperature Range: -55°C to +150°C
- Typical Thermal Resistance: 30°C/W Junction to Ambient

MCC Part Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
FR501GP	FR501GP	50V	35V	50V
FR502GP	FR502GP	100V	70V	100V
FR503GP	FR503GP	200V	140V	200V
FR504GP	FR504GP	400V	280V	400V
FR505GP	FR505GP	600V	420V	600V
FR506GP	FR506GP	800V	560V	800V
FR507GP	FR507GP	1000V	700V	1000V

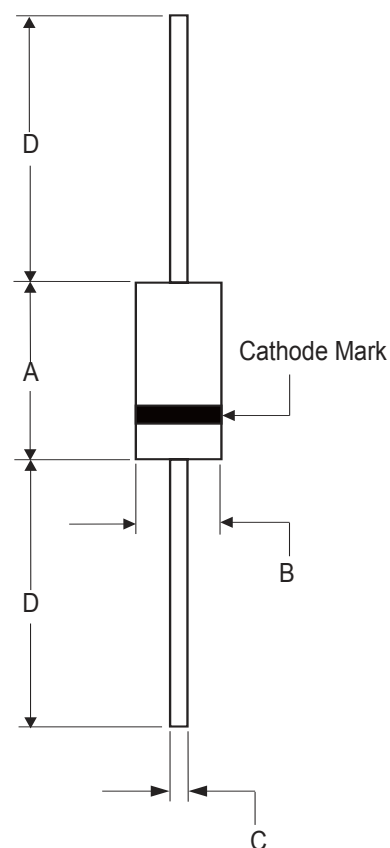
Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	5.0A	$T_A=55^\circ\text{C}$
Peak Forward Surge Current	I_{FSM}	200A	8.3ms, Half Sine
Maximum Instantaneous Forward Voltage	V_F	1.35V	$I_{FM}=5.0\text{A}; T_J=25^\circ\text{C}$
Maximum DC Reverse Current At Rated DC Blocking Voltage	I_R	10.0 μA 150 μA	$T_J=25^\circ\text{C}; T_J=55^\circ\text{C}$
Maximum Reverse Recovery Time FR501GP-504GP FR505GP FR506GP-507GP	t_{rr}	150ns 250ns 500ns	$I_F=0.5\text{A}; I_R=1.0\text{A}; I_{rr}=0.25\text{A}$
Typical Junction Capacitance	C_J	65pF	Measured at 1.0MHz $V_R=4.0\text{V}$

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

5.0 Amp Fast Recovery Rectifier 50 to 1000 Volts

DO-201AD



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

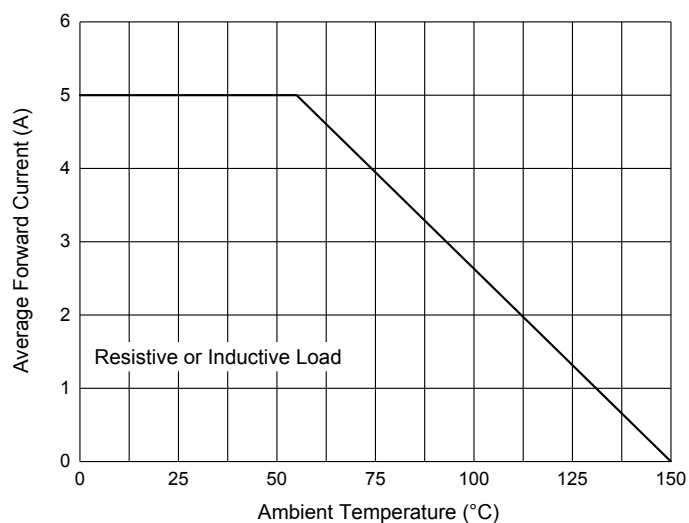


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

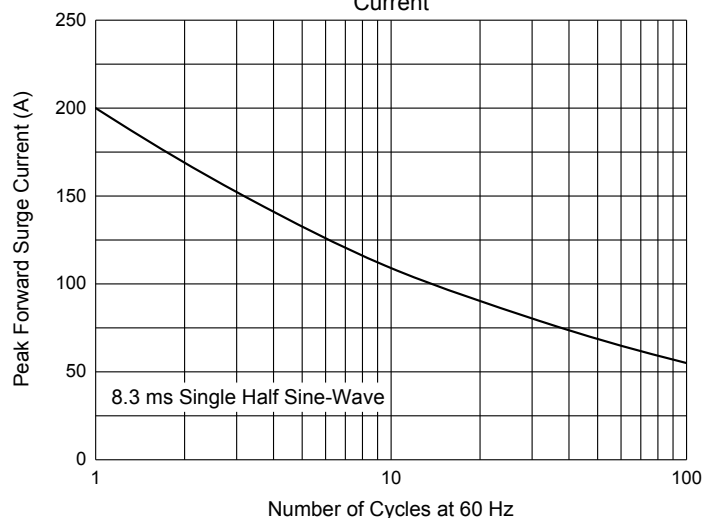


Fig. 3 - Typical Instantaneous Forward Characteristics

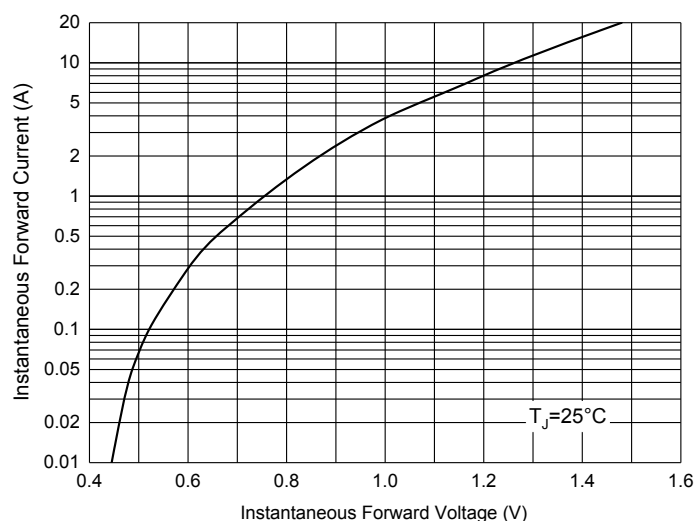
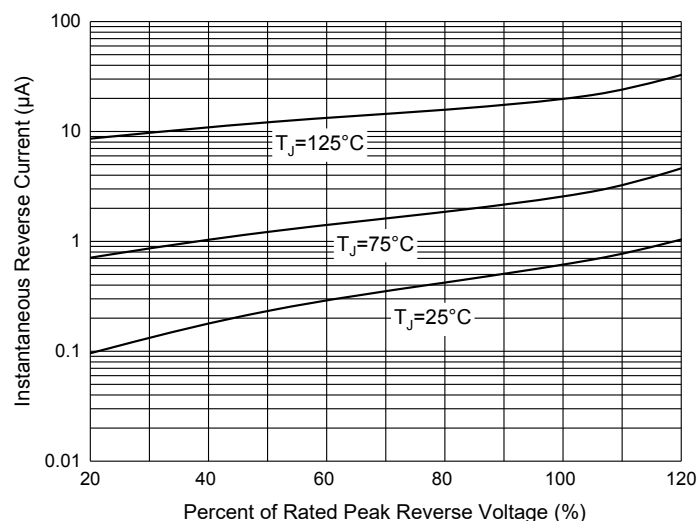


Fig. 4 - Typical Reverse Characteristics



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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