

## Features

- High Current Capability And Low Forward Voltage Drop
- Low Reverse Leakage Current And Diffused Junction
- Epoxy Meets UL 94 V-0 Flammability Rating
- Moisture Sensitivity Level 1
- Halogen Free Available Upon Request By Adding Suffix "-HF"
- Lead Free Finish/RoHS Compliant (Note 1) ("P" Suffix Designates Compliant. See Ordering Information)

## 10.0 Amp Fast Recovery Rectifier 50 to 1000 Volts

## Maximum Ratings

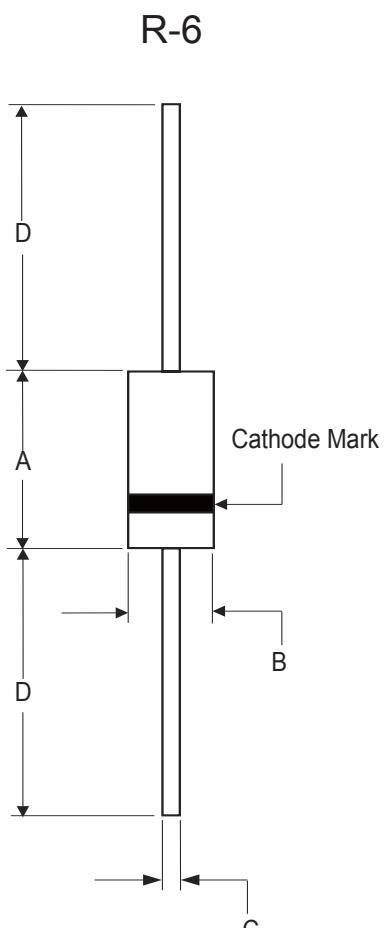
- Operating Junction Temperature Range: -55°C to +150°C
- Storage Temperature Range: -55°C to +150°C
- Typical Thermal Resistance: 8°C/W Junction to Ambient
- Typical Thermal Resistance: 5°C/W Junction to Case

MCC Part Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
FR1001GP	FR1001GP	50V	35V	50V
FR1002GP	FR1002GP	100V	70V	100V
FR1003GP	FR1003GP	200V	140V	200V
FR1004GP	FR1004GP	400V	280V	400V
FR1005GP	FR1005GP	600V	420V	600V
FR1006GP	FR1006GP	800V	560V	800V
FR1007GP	FR1007GP	1000V	700V	1000V

## Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	10.0A	$T_A=55^{\circ}\text{C}$
Peak Forward Surge Current	$I_{FSM}$	250A	8.3ms, Half Sine
Maximum Instantaneous Forward Voltage	$V_F$	1.30V	$I_{FM}=10.0\text{A}; T_J=25^{\circ}\text{C}$
Maximum DC Reverse Current At Rated DC Blocking Voltage	$I_R$	5.0 $\mu\text{A}$	$T_J=25^{\circ}\text{C};$
Maximum Reverse Recovery Time	$t_{rr}$	150ns 250ns 500ns	$I_F=0.5\text{A}; I_R=1.0\text{A}; Irr=0.25\text{A}$
FR1001GP~FR1004GP FR1005GP FR1006GP~FR1007GP			

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



DIM	DIMENSIONS				NOTE
	INCHES	MIN	MAX	MM	
A	0.340	0.360	8.60	9.10	
B	0.340	0.360	8.60	9.10	
C	0.048	0.052	1.20	1.32	
D	1.000	-----	25.40	-----	

## Curve Characteristics

Fig. 1 - Forward Current Derating Curve

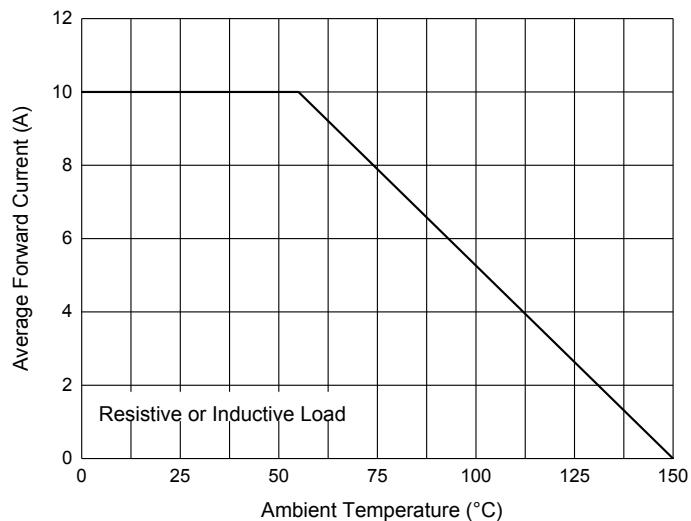


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

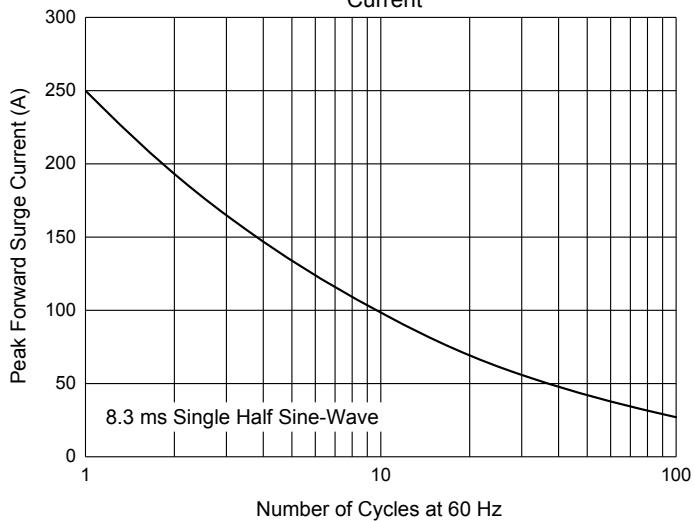


Fig. 3 - Typical Instantaneous Forward Characteristics

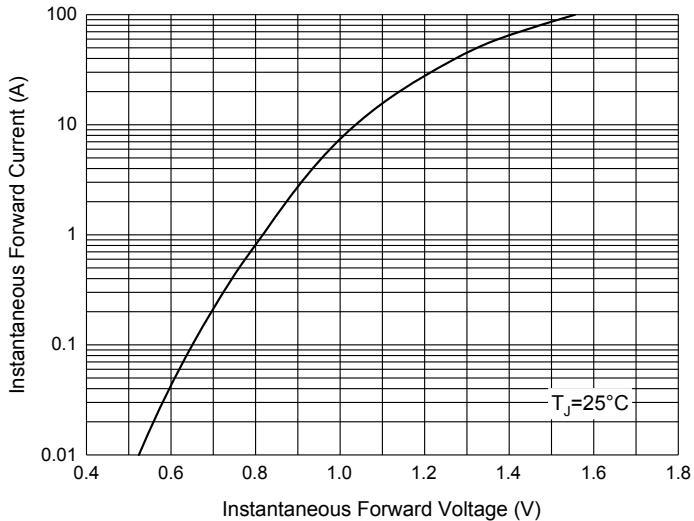
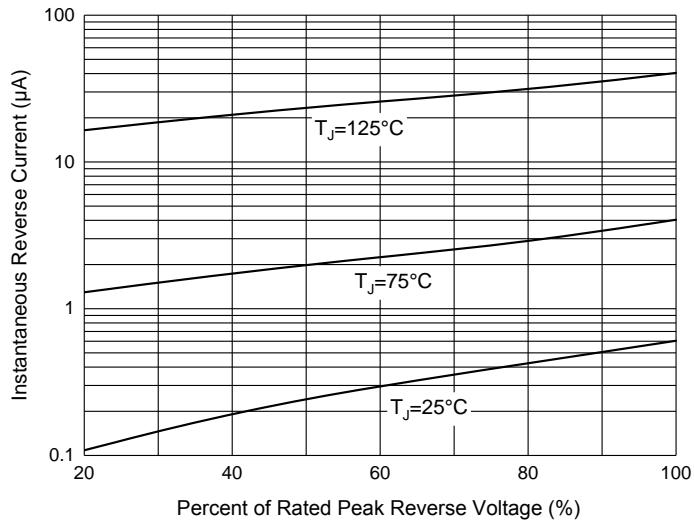


Fig. 4 - Typical Reverse Characteristics



## Ordering Information

Device	Packing
(Part Number)-TP	Tape&Reel: 500pcs/Reel
(Part Number)-AP	Ammo Packing: 450pcs/Ammo Box
(Part Number)-BP	Bulk: 200pcs/Box ;4.8Kpcs/Carton

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

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