

FR1001GP THRU FR1007GP

Features

- Lead Free Finish/Rohs Compliant (Note1) ("P" Suffix designates Compliant. See ordering information)
- 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"

Maximum Ratings

- Operating Temperature: -55°C to +150°C
- Storage Temperature: -55°C to +150°C
- Typical Thermal Resistance: R θ J-a: 8 °C/W
R θ J-C: 5 °C/W

MCC Catalog 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

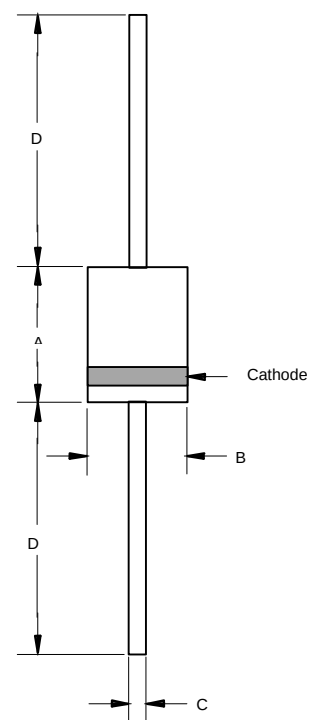
Electrical Characteristics @ 25 °C Unless Otherwise Specified

Average Forward Current	I _{F(AV)}	10 A	T _a = 55°C
Peak Forward Surge Current	I _{FSM}	250A	8.3ms, half sine
Maximum Instantaneous Forward Voltage	V _F	1.3V	I _{FM} = 10A; T _A = 25°C
Maximum DC Reverse Current At Rated DC Blocking Voltage	I _R	5μA	T _A = 25°C
Maximum Reverse Recovery Time FR1001GP-1004GP FR1005GP FR1006GP-1007GP	T _{rr}	150ns 250ns 500ns	I _F =0.5A, I _R =1.0A, I _{rr} =0.25A

Notes:1.High Temperature Solder Exemption Applied, see EU Directive Annex 7a

10 Amp Glass Passivated Fast Recovery Rectifier 50 to 1000 Volts

R-6



DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.340	.360	8.60	9.10	
B	.340	.360	8.60	9.10	
C	.048	.052	1.20	1.30	
D	1.000	---	25.40	---	

■ Characteristics(Typical)

FIG.1 FORWARD CURRENT DERATING CURVE

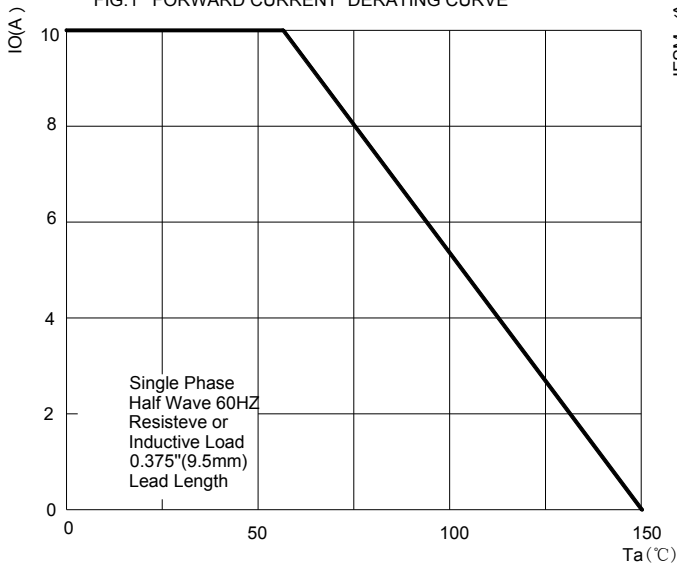


FIG.2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

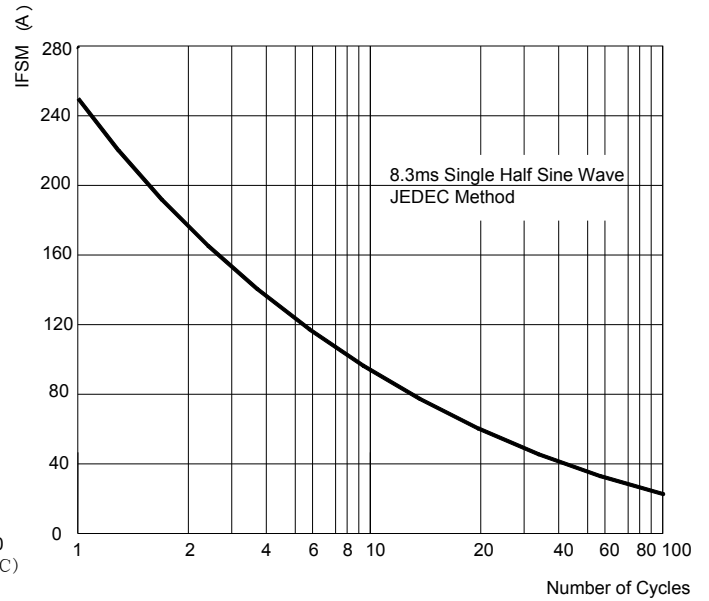


FIG.3 TYPICAL FORWARD CHARACTERISTICS

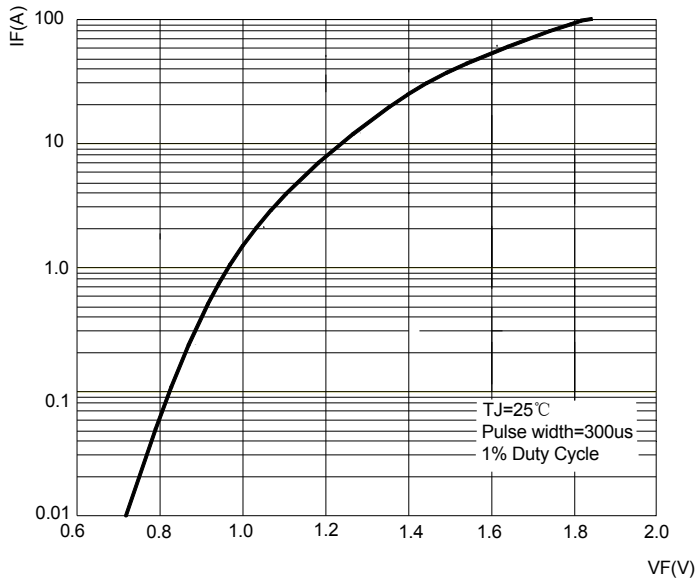


FIG.4 TYPICAL REVERSE CHARACTERISTICS

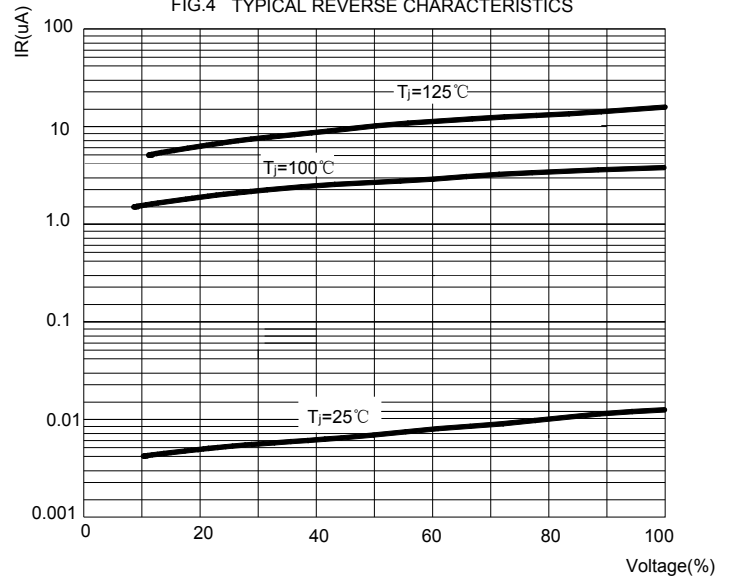
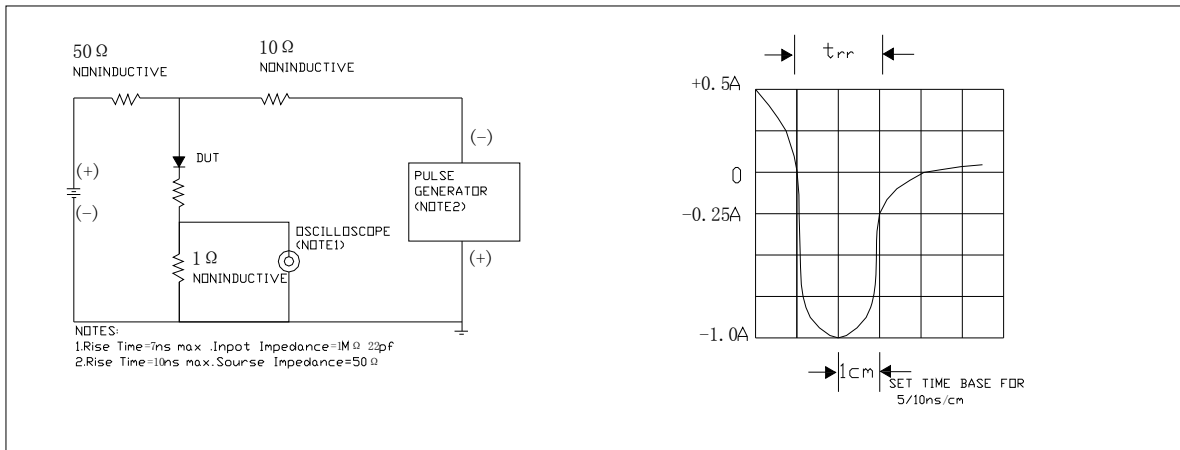


Fig 5. Diagram of circuit and Testing wave form of reverse recovery time



Ordering Information :

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

Note : Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF

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