



SEMICONDUCTOR

GPRC

# GF10A THRU GF10M

Surface Mount Glass Passivated Rectifier  
Reverse Voltage - 50 to 1000 Volts  
Forward Current - 1.0Ampere

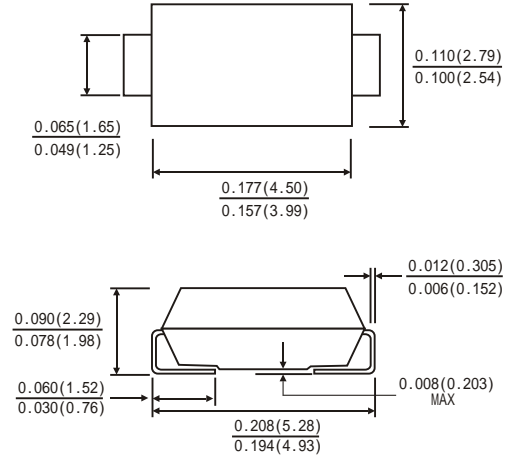
SILICON RECTIFIER

## FEATURES

- GPRC( Glass Passivated Rectifier Chip) inside
  - Glass passivated cavity-free junction Plastic package has Underwriters Laboratory
  - Flammability Classification 94V-0
  - Construction utilizes void-free molded plastic technique
- For surface mounted applications
- Built-in strain relief, ideal for automated placement
- High temperature soldering:
- 250° C/10 seconds at terminals



## SMA(DO-214AC)



Dimensions in inches and (millimeters)

## MECHANICAL DATA

- Case: JEDEC DO-214AC molded plastic over glass passivated chip
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
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- Weight: 0.002 oz., 0.064 g

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(Ratings at 25° C ambient temperature unless otherwise specified ,Single phase ,half wave 60Hz.,resistive or inductive load. For capacitive load, derate by 20%.)

	Symbols	GF 10A	GF 10B	GF 10D	GF 10G	GF 10J	GF 10K	GF 10M	Units	
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	Volts	
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	Volts	
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	Volts	
Maximum average Forward Rectified Current 0.375"(9.5mm) lead length at T <sub>A</sub> =75° C	I <sub>(AV)</sub>	1.0							Amp	
Peak Forward Surge Current (8.3ms half sine-wave superimposed on rated load (JEDEC method) T <sub>A</sub> =75° C	I <sub>FSM</sub>	30.0							Amps	
Maximum Instantaneous Forward Voltage at 1.0 A	V <sub>F</sub>	1.0							Volts	
Maximum Reverse current at rated DC Blocking Voltage	I <sub>R</sub>	T <sub>A</sub> = 25° C	5.0							μ A
		T <sub>A</sub> = 100° C	50.0							
Typical Thermal resistance (Note 2)	R <sub>θJA</sub>	75							°C/W	
	R <sub>θJL</sub>	27								
Typical Junction Capacitance(Note 1)	C <sub>J</sub>	12							PF	
Maximum DC Blocking Voltage temperature	T <sub>A</sub>	+150							°C	
Operating and Storage temperature Range	T <sub>J</sub>	-50 to +175							°C	
	T <sub>STG</sub>									

Note: 1. Measured at 1MHz and applied reverse voltage of 4.0V DC.

2. Thermal resistance from junction to ambient and from junction to lead at 0.375"(9.5mm) lead length, P.C.B. mounted

# RATINGS AND CHARACTERISTIC CURVES GF10A THRU GF10M

FIG.1-FORWARD CURRENT DERATING CURVE

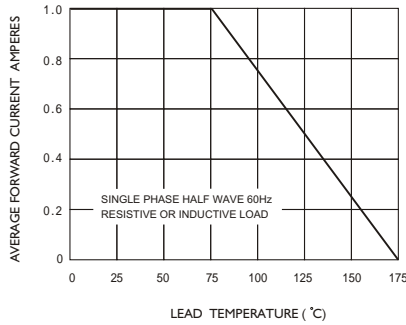


FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

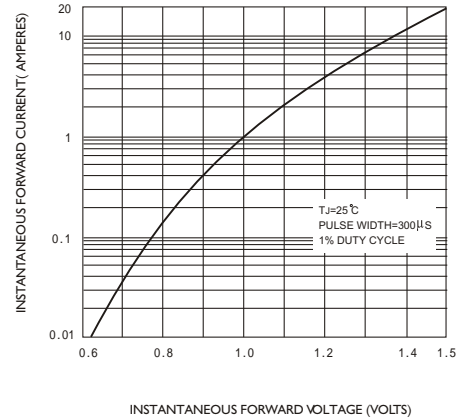


FIG.3-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

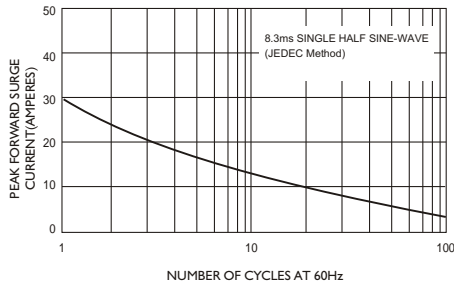


FIG.4-TYPICAL REVERSE CHARACTERISTICS

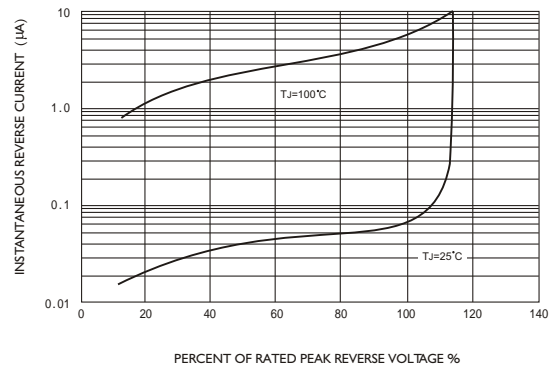


FIG.5-TYPICAL JUNCTION CAPACITANCE

