SEMICONDUCTOR

GPRC

GF10A THRU GF10M

Surface Mount Glass Passivated Rectifier

Reverse Voltage - 50 to 1000 Volts

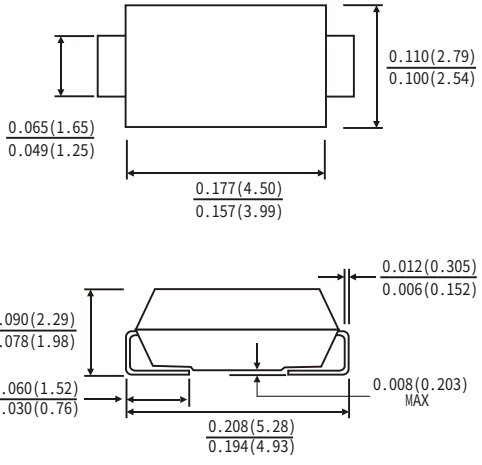
Forward Current -1.0Ampere

SILICON RECTIFIER

FEATURES

- GPRC(Glass Passivated Rectifier Chip) inside
- Glass passivated cavity-free junctionPlastic 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_{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	Volts
Maximum average Forward Rectified Current 0.375"(9.5mm) lead length at T_A=75℃	$I_{(AV)}$	1.0							Amp
Peak Forward Surge Current (8.3ms half sine-wave superimposed on rated load (JEDEC method) T_A=75℃	I_{FSM}	30.0							Amps
Maximum Instantaneous Forward Voltage at 1.0 A	V_F	1.0							Volts
Maximum Reverse current at rated DC Blocking Voltage T_A =25℃	I_R	5.0							μA
Maximum Reverse current at rated DC Blocking Voltage T_A =100℃	I_R	50.0							μA
Typical Thermal resistance (Note 2)	$R_{\theta JA}$	75							℃/W
Typical Thermal resistance (Note 2)	$R_{\theta JL}$	27							℃/W
Typical Junction Capacitance(Note 1)	C_J	12							pF
Maximum DC Blocking Voltage temperature	T_A	+150							℃
Operating and Storage temperature Range	T_J T_{STG}	-50 to+175							℃

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

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RATINGS AND CHARACTERISTIC CURVES GF10A THRU GF10M

FIG.1-FORWARD CURRENT DERATING CURVE

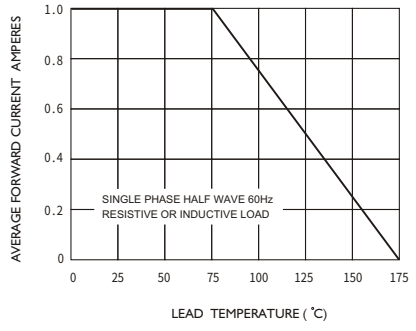


FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

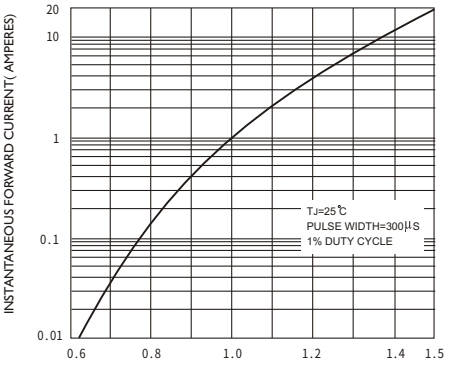


FIG.3-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

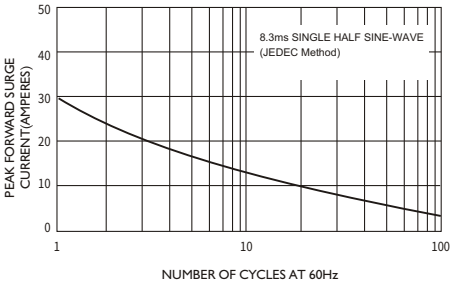


FIG.4-TYPICAL REVERSE CHARACTERISTICS

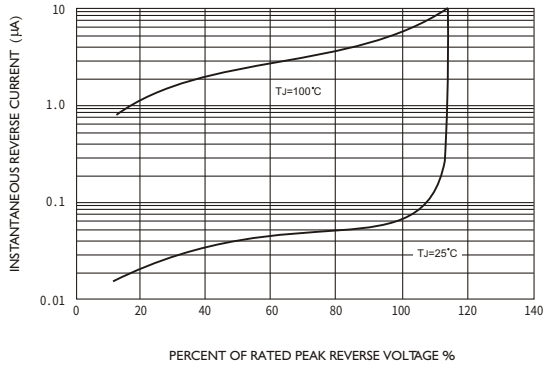
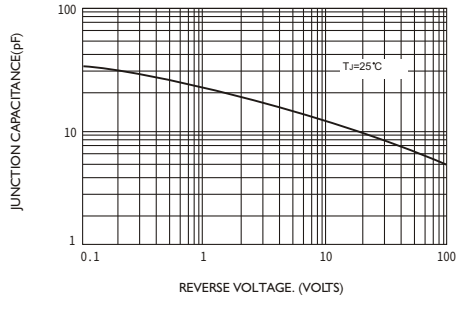


FIG.5-TYPICAL JUNCTION CAPACITANCE



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