SEMICONDUCTOR

GPRC

RGP10A THRU RGP10M

FAST RECOVERY RECTIFIER

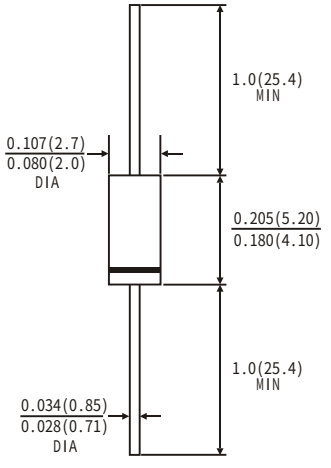
Reverse Voltage: 50 to 1000 Volts
Forward Current: 1.0Ampere

FAST RECOVERY RECTIFIER

FEATURES

- GPRC(Glass Passivated Rectifier Chip) inside
- Glass passivated cavity-free junction
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Fast switching speed
- Construction utilizes void-free molded plastic technique
- 1.0A operation at T_A=75 C with to terminal runaway
- High temperature soldering guaranteed:250 C/10 seconds, 0.375"(9.5mm) lead length,5 lbs.(2.3kg)tension.

DO-41



Dimensions in inches and (millimeters)

MECHANICAL DATA

- *Case*: JEDEC DO-41 molded plastic body
- *Terminals*: Plated axial leads, solderable per MIL-STD-750,method 2026
- *Polarity*: Color band denotes cathode end
- *Mounting Position*: Any
- *Weight*: 0.012ounce, 0.33 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

	Symbols	RGP 10A	RGP 10B	RGP 10D	RGP 10G	RGP 10J	RGP 10K	RGP 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 single half sine-wave superimposed on rated load (JEDEC method) at T_A=25℃	I_{FSM}	30.0							Amps
Maximum Instantaneous Forward Voltage at 1.0 A	V_F	1.3							Volts
Maximum DC Reverse Current at rated DC blocking voltage	I_R	5.0							μA
Maximum full load reverse current full cycle average. 0.375"(9.5mm)lead length at T_L=55℃		100							
Maximum reverse recovery time(Note1)	T_{rr}	150				250	500		ns
Typical junction capacitance(Note2)	C_J	15.0							pF
Operating junction and storage temperature range	T_J T_{STG}	-65 to+150							℃

Note: 1.Test conditions: I_F=0.5A,I_R=1.0A,I_{RR}=0.25A.

2.Measured at 1MHz and applied reverse voltage of 4.0 Volts.

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RATINGS AND CHARACTERISTIC CURVES RGP10A THRU RGP10M

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

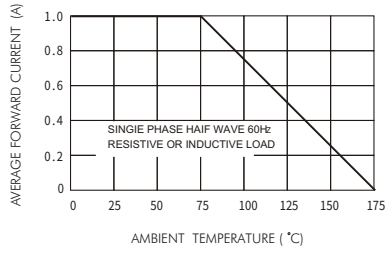


FIG.2-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

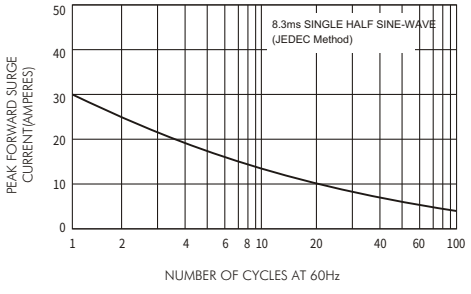


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

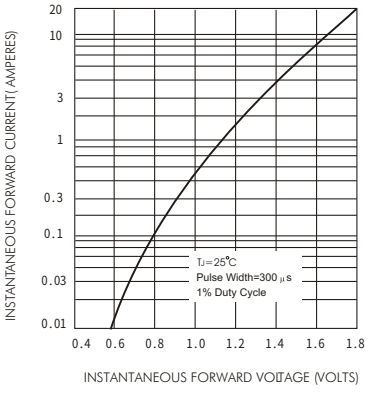


FIG.4-TYPICAL REVERSE CHARACTERISTICS

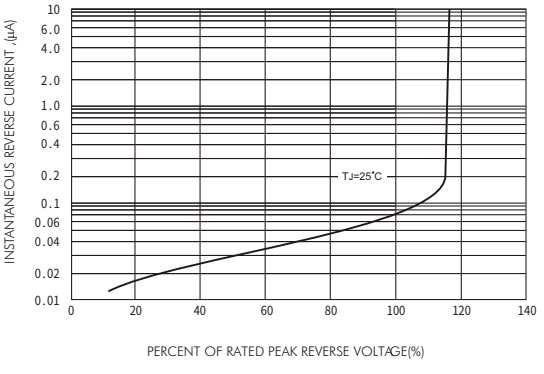


FIG.5-TYPICAL JUNCTION CAPACITANCE

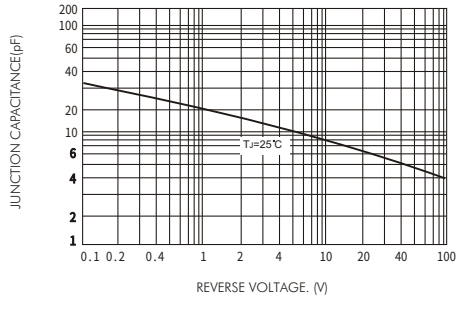
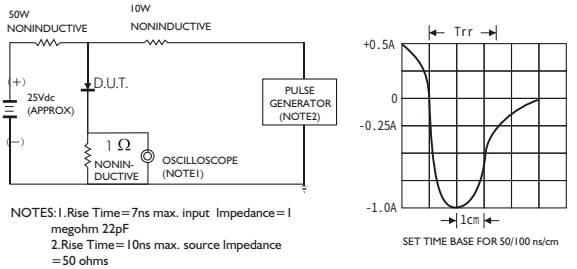


FIG.6-TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



NOTES: 1.Rise Time=7ns max. input Impedance=1 megohm 22pF
2.Rise Time=10ns max. source Impedance =50 ohms

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