SEMICONDUCTOR

GPRC

RGF20A THRU RGF20M

FAST RECOVERY RECTIFIER

Reverse Voltage: 50 to 1000 Volts
Forward Current:2.0Amperes

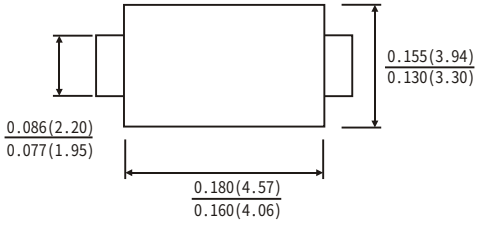
FAST RECOVERY RECTIFIER

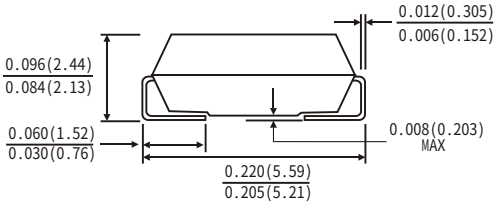
FEATURES



- GPRC(Glass Passivated Rectifier Chip) inside
- Glass passivated cavity-free junction
- For Surface Mount Applications, Easy to pick and place
- Fast switching
- Low leakage, Low forward voltage drop
- High current capability,High current surge
- High reliability

SMB(DO-214AA)





Dimensions in inches and (millimeters)

MECHANICAL DATA

- *Case*: JEDEC SMB(DO-214AA) molded plastic body
- *Terminals*: solder plated ,solderable per MIL-STD-750,method 2026
- *Polarity*: color band denotes cathode end
- *Weight*: 0.003ounce,0.093 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	RGF 20A	RGF 20B	RGF 20D	RGF 20G	RGF 20J	RGF 20K	RGF 20M	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 ℃	$I_{(AV)}$	2.0							Amp
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	65.0							Amps
Maximum Instantaneous Forward Voltage at 2.0 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˚C		100							
Maximum reverse recovery time(Note1)	T_{rr}	150				250	500		ns
Typical junction capacitance(Note2)	C_J	35							pF
Operating junction and storage temperature range	T_J T_{STG}	-65 to+150							˚C

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 RGF20A THRU RGF20M

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

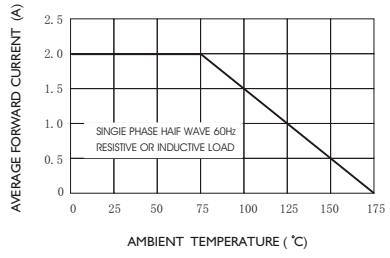


FIG.2-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

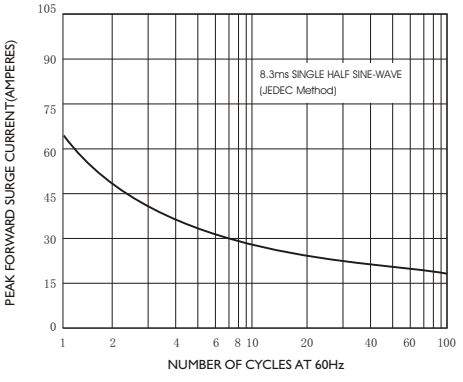


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

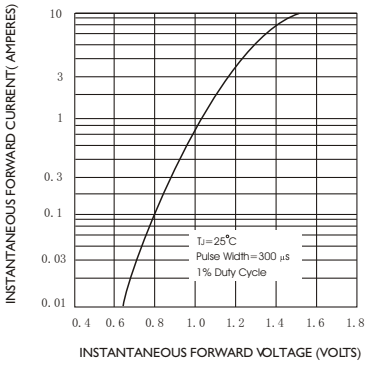


FIG.4-TYPICAL JUNCTION CAPACITANCE

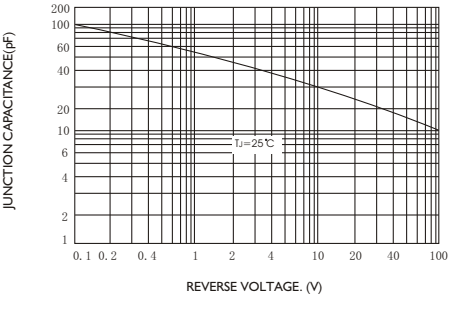
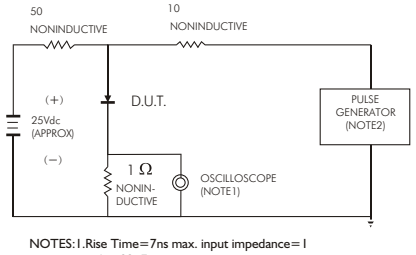
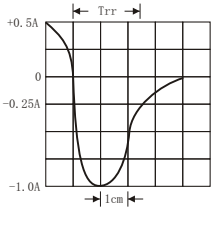


FIG.5-TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



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



SET TIME BASE FOR 50/100 ns/cm

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