



RGP20A THRU RGP20M

2.0 AMPS. Glass Passivated Junction Fast Recovery Rectifiers



Voltage Range
50 to 1000 Volts
Current
2.0 Amperes

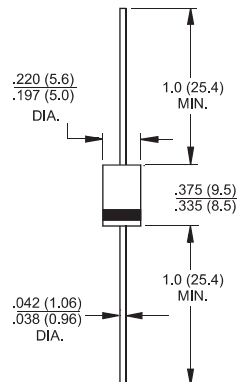
Features

- High temperature metallurgically bonded constructed
- Plastic material used carries Underwriters Laboratory Classification 94V-0
- Glass passivated cavity-free junction
- Capable of meeting environmental standards of MIL-S-19500
- 2.0 amperes operation at $T_A=55^\circ\text{C}$ with no thermal runaway
- Typical I_R less than 0.2 μA
- High temperature soldering guaranteed:
350°C/10seconds/.375" (9.5mm) lead length at 5 lbs., 2.3 kg tension

Mechanical Data

- Cases: JEDEC DO-201 molded plastic over glass body
- Lead: Plated Axial leads, solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Mounting position: Any
- Weight: 0.03 ounce, 0.8 gram

DO-201



Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20%

Type Number	Symbol	RGP 20A	RGP 20B	RGP 20D	RGP 20G	RGP 20J	RGP 20K	RGP 20M	Units
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V _{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V _{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current .375" (9.5mm) Lead Length @ T _A = 55°C	I _(AV)	2.0							A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I _{FSM}	80.0							A
Maximum Instantaneous Forward Voltage @ 2.0A	V _F	1.3							V
Maximum Full Load Reverse Current, Full Cycle Average 0.375"(9.3mm) Lead Length at T _A =55°C	HT _{IR}	100							uA
Maximum DC Reverse Current @ T _A =25°C at Rated DC Blocking Voltage @ T _A =125°C	I _R	5.0 200							uA uA
Maximum Reverse Recovery Time (Note 1)	T _{rr}	150				250	500		nS
Typical Junction Capacitance (Note 2)	C _j	35.0							pF
Typical Thermal Resistance (Note 3)	R θ JA	22.0							°C/W
Operating and Storage Temperature Range	T _J , T _{STG}	-65 to + 175							°C

Notes: 1. Reverse Recovery Test Conditions: $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $IRR=0.25\text{A}$

2. Measured at 1.0 MHz and Applied $V_R=4.0$ Volts

3. Thermal Resistance from Junction to Ambient at .375" (9.5mm) Lead Lengths, PC Board Mounted.

RATINGS AND CHARACTERISTIC CURVES (RGP20A THRU RGP20M)

FIG.1- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

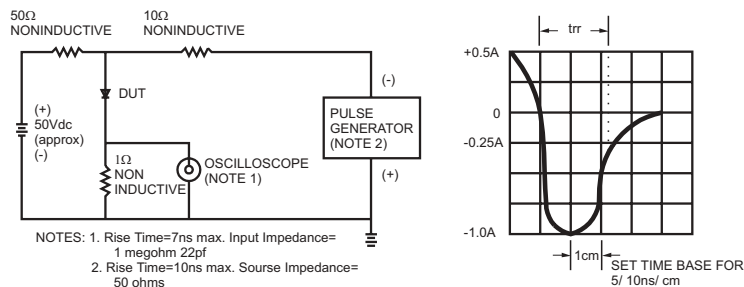


FIG.2- MAXIMUM FORWARD CURRENT DERATING CURVE

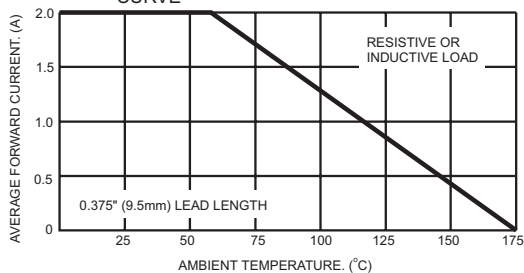


FIG.3- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

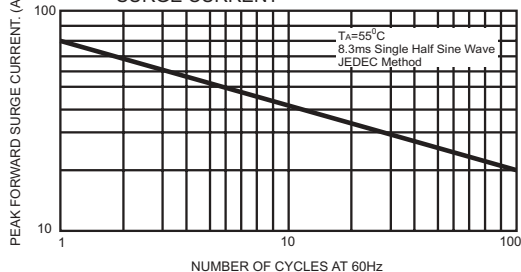


FIG.4- TYPICAL JUNCTION CAPACITANCE

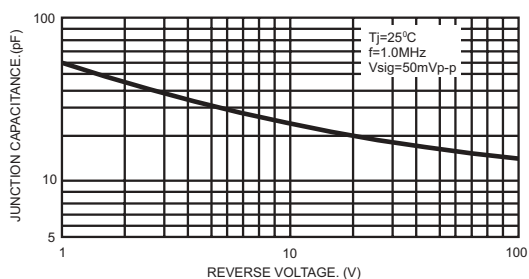


FIG.5- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

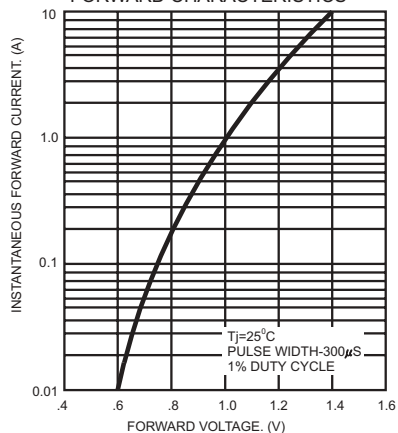


FIG.6- TYPICAL REVERSE CHARACTERISTICS

