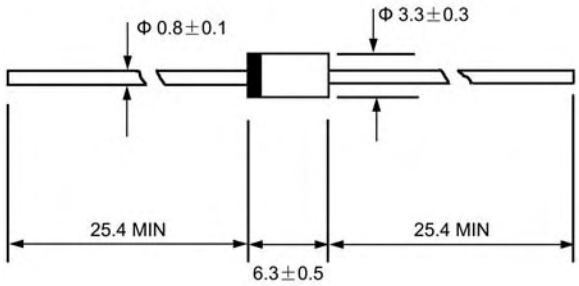
RGP20A-RGP20J

Fast Recovery Rectifiers

VOLTAGE RANGE: 50 --- 600 V
CURRENT: 2.0 A

DO - 15



Dimensions in millimeters

Features

- ◇ Low cost
- ◇ Diffused junction
- ◇ Low leakage
- ◇ Low forward voltage drop
- ◇ High current capability
- ◇ Easily cleaned with Freon,Alcohol,Isopropanol and similar solvents
- ◇ The plastic material carries U/L recognition 94V-0

Mechanical Data

- ◇ Case:JEDEC DO-15,molded plastic
- ◇ Terminals: Axial lead ,solderable per MIL- STD-750,Method 2026
- ◇ Polarity: Color band denotes cathode
- ◇ Weight: 0.014 ounces,0.39 grams
- ◇ Mounting position: Any

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25℃ ambient temperature unless otherwise specified.

Single phase,half wave,60 Hz,resistive or inductive load. For capacitive load,derate by 20%.

		RGP 20A	RGP 20B	RGP 20D	RGP 20G	RGP 20J	UNITS
Maximum recurrent peak reverse voltage	V_{RRM}	50	100	200	400	600	V
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	V
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	V
Maximum average forw ard rectified current 9.5mm lead length, @T_A=75℃	$I_{F(AV)}$	2.0					A
Peak forw ard surge current 8.3ms single half-sine-w ave superimposed on rated load @T_J=125℃	I_{FSM}	80.0					A
Maximum instantaneous forw ard voltage @ 2.0 A	V_F	1.3					V
Maximum reverse current @T_A=25℃ at rated DC blocking voltage @T_A=100℃	I_R	5.0 100.0					μA
Maximum reverse recovery time (Note1)	t_{rr}	150				250	ns
Typical junction capacitance (Note2)	C_J	18					pF
Typical thermal resistance (Note3)	$R_{\theta JA}$	45					℃/W
Operating junction temperature range	T_J	- 55---- + 150					℃
Storage temperature range	T_{STG}	- 55---- + 150					℃

NOTE:1. Measured with I_F=0.5A, I_R=1A, I_{rr}=0.25A.

2. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

3. Thermal resistance from junction to ambient.

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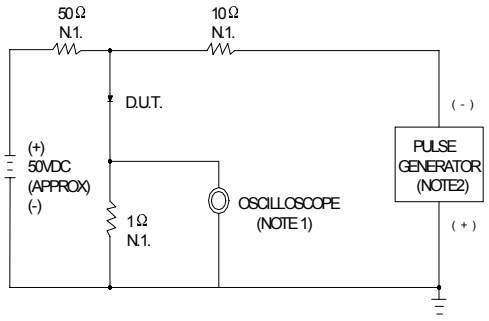
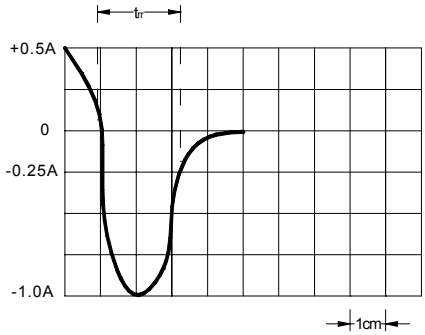
Ratings AND Charactieristic Curves

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





NOTES:1.RESE TIME=7ns MAX.INPUT IMPEDANCE=1MΩ.22pF.
2.RESE TIME=10ns MAX.SOURCE IMPEDANCE=500Ω.

SET TIME BASE FOR 50/100 ns /cm

FIG.2 --PEAK FORWARD SURGE VURRENT

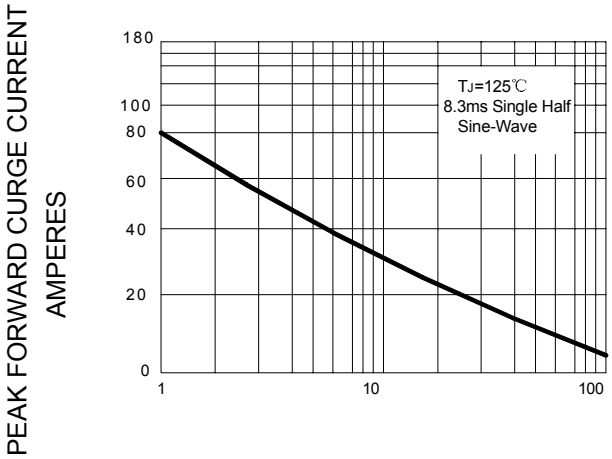


FIG.3--TYPICAL JUNCTION CAPACITANCE

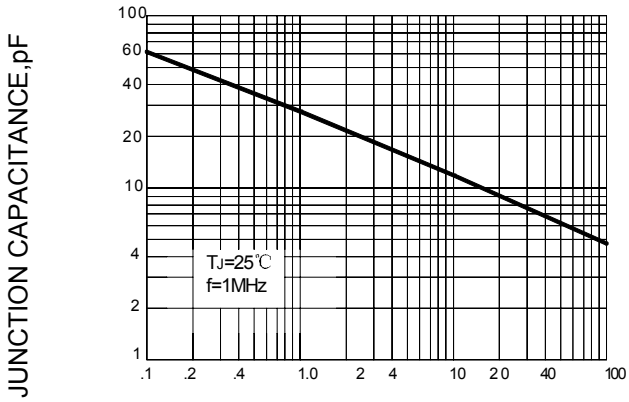


FIG.4--TYPICAL FORWARD CHARACTERISTICS

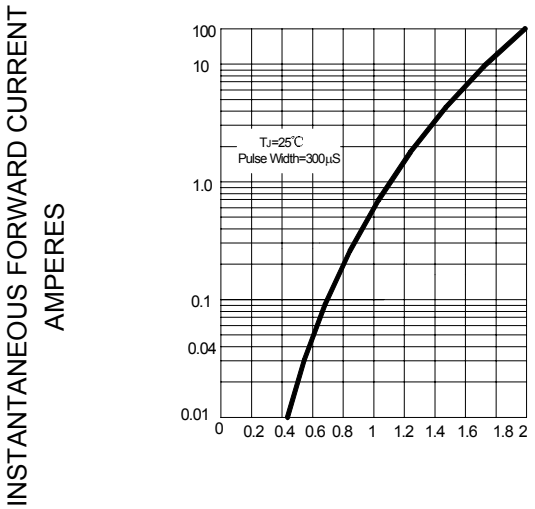


FIG.5--FORWARD CURRENT DERATING CURVE