



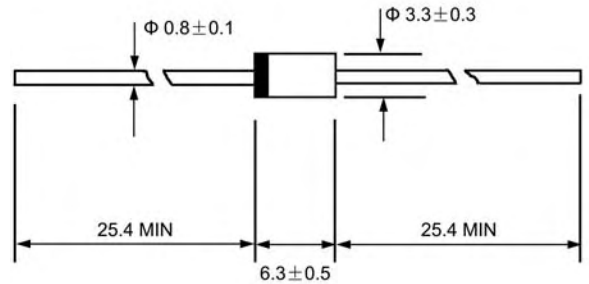
### Features

- ◇ 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

### DO - 15



Dimensions in millimeters

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C 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 forward rectified current 9.5mm lead length, @ $T_A=75^\circ C$	$I_{F(AV)}$	2.0					A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load @ $T_J=125^\circ C$	$I_{FSM}$	80.0					A
Maximum instantaneous forward voltage @ 2.0 A	$V_F$	1.3					V
Maximum reverse current @ $T_A=25^\circ C$ at rated DC blocking voltage @ $T_A=100^\circ C$	$I_R$	5.0 100.0					$\mu A$
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					$^\circ C/W$
Operating junction temperature range	$T_J$	- 55 ---- + 150					$^\circ C$
Storage temperature range	$T_{STG}$	- 55 ---- + 150					$^\circ C$

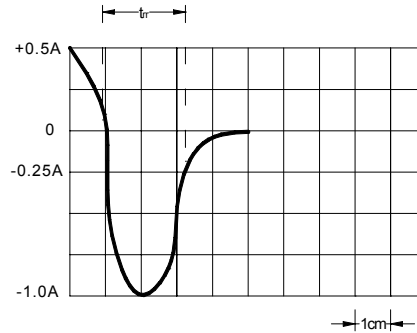
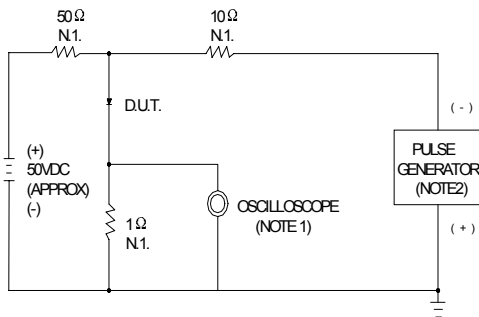
NOTE:1. Measured with  $I_F=0.5A$ ,  $I_R=1A$ ,  $I_{rr}=0.25A$ .

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

3. Thermal resistance from junction to ambient.

### Ratings AND Characteristic Curves

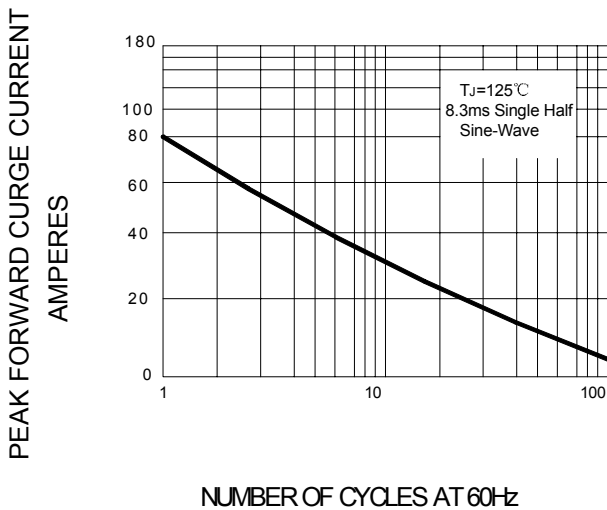
**FIG.1 –REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM**



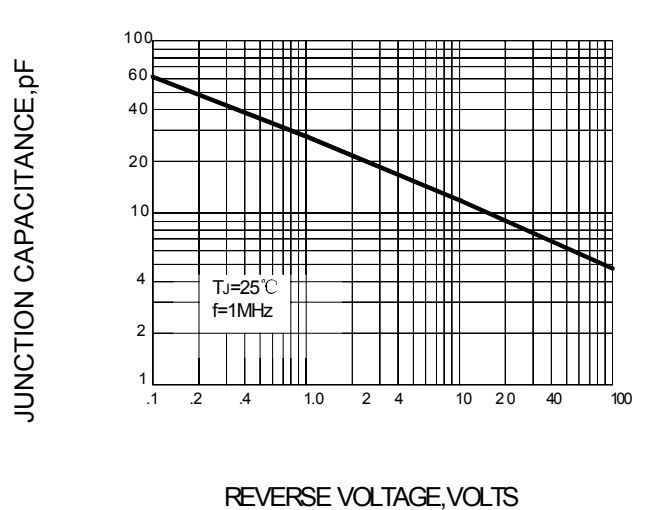
NOTES: 1. RESE TIME=7ns MAX.INPUT IMPEDANCE=1MΩ,22pF.  
2. RESE TIME=10ns MAX.SOURCE IMPEDANCE=500Ω.

SET TIME BASE FOR 50/100 ns /cm

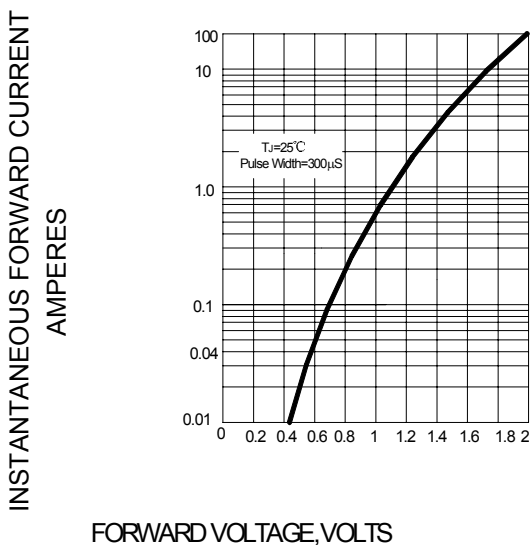
**FIG.2 –PEAK FORWARD SURGE CURRENT**



**FIG.3–TYPICAL JUNCTION CAPACITANCE**



**FIG.4–TYPICAL FORWARD CHARACTERISTICS**



**FIG.5–FORWARD CURRENT DERATING CURVE**

