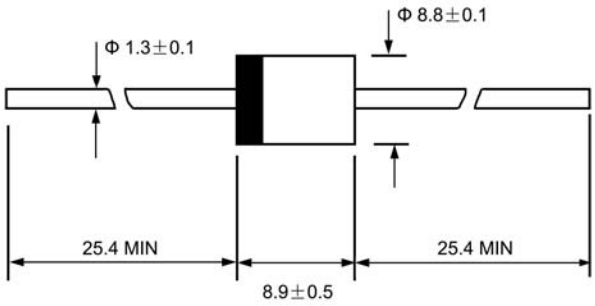
RGP50A-RGP50M

Fast Recovery Rectifiers

VOLTAGE RANGE: 50 --- 1000 V
CURRENT: 5.0 A

R-6



Dimensions in millimeters

Features

- ◇ Low cost
- ◇ Glass passivated 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 R-6,molded plastic
- ◇ Polarity: Color band denotes cathode
- ◇ Weight: 0.072 ounces,2.04 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 50A	RGP 50B	RGP 50D	RGP 50G	RGP 50J	RGP 50K	RGP 50M	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 forw ard rectified current 9.5mm lead length, @T_A=55℃	$I_{F(AV)}$	5.0							A
Peak forw ard surge current 8.3ms single half-sine-w ave superimposed on rated load @T_J=125℃	I_{FSM}	300							A
Maximum instantaneous forw ard voltage @ 5.0 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	500		ns
Typical junction capacitance (Note2)	C_J	32							pF
Typical thermal resistance (Note3)	$R_{\theta JA}$	10							℃/W
Operating junction temperature range	T_J	- 55---- +175							℃
Storage temperature range	T_{STG}	- 55---- + 175							℃

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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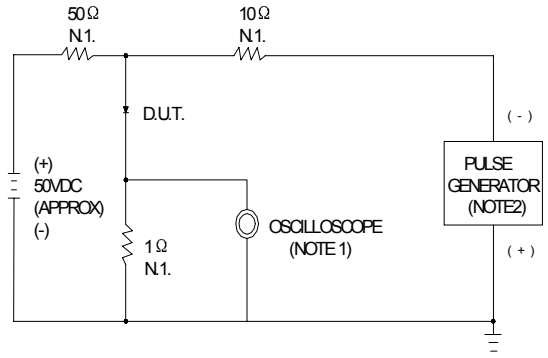
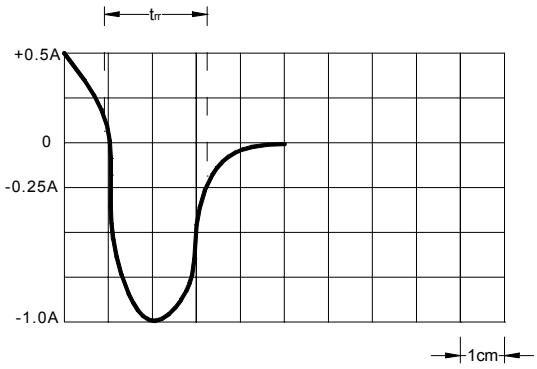
Ratings AND Charactieristic Curves

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 CURRENT

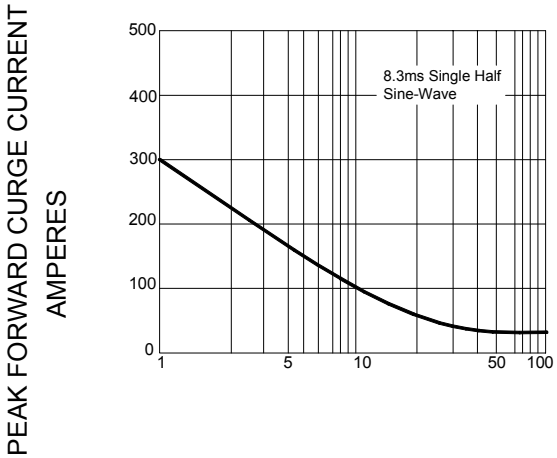


FIG.3–TYPICAL FORWARD CHARACTERISTICS

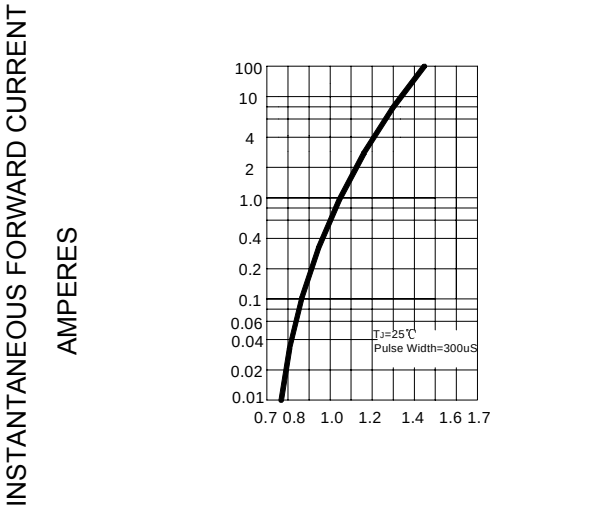


FIG.4–FORWARD CURRENT DERATING CURVE

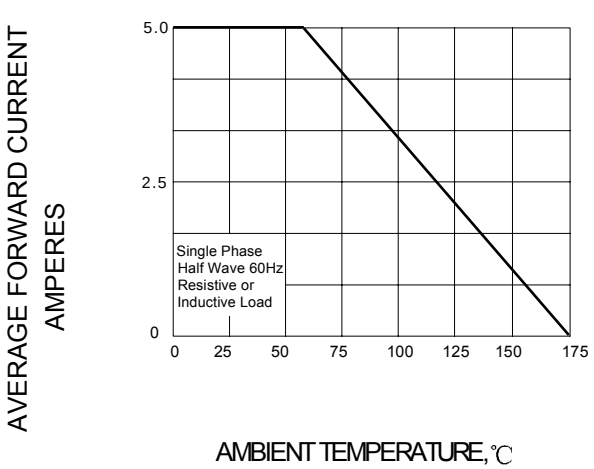


FIG.5–TYPICAL REVERSE CHARACTEISTICS