

FAST RECOVERY RECTIFIERS

VOLTAGE RANGE: 50 --- 1000 V

CURRENT: 3.0 A

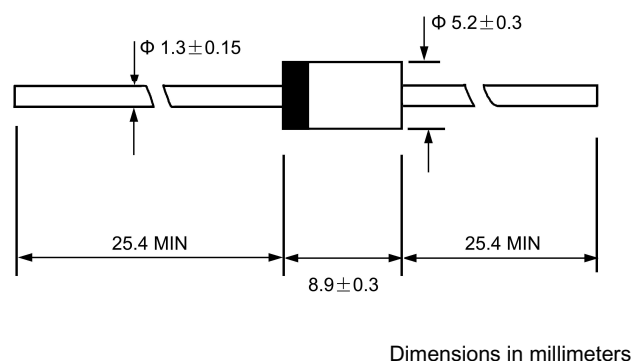
FEATURES

- ◇ 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-27,molded plastic
- ◇ Terminals: Axial lead ,solderable per MIL- STD-750,Method 2026
- ◇ Polarity: Color band denotes cathode
- ◇ Weight: 0.04 ounces,1.12 grams
- ◇ Mounting position: Any

DO - 27



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 30A	RGP 30B	RGP 30D	RGP 30G	RGP 30J	RGP 30K	RGP 30M	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 9.5mm lead length, @T _A =75°C	I _{F(AV)}	3.0							A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load @T _J =125°C	I _{FSM}	125.0							A
Maximum instantaneous forward voltage @ 3.0 A	V _F	1.3							V
Maximum reverse current @T _A =25°C at rated DC blocking voltage @T _A =100°C	I _R	5.0 100.0							μ A
Maximum reverse recovery time (Note1)	t _{rr}	150				250	500		ns
Typical junction capacitance (Note2)	C _J	32							pF
Typical thermal resistance (Note3)	R _{θJA}	22							°C/W
Operating junction temperature range	T _J	- 55---- +150							°C
Storage temperature range	T _{STG}	- 55---- + 150							°C

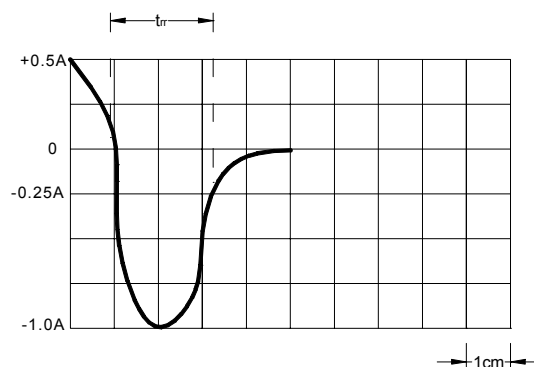
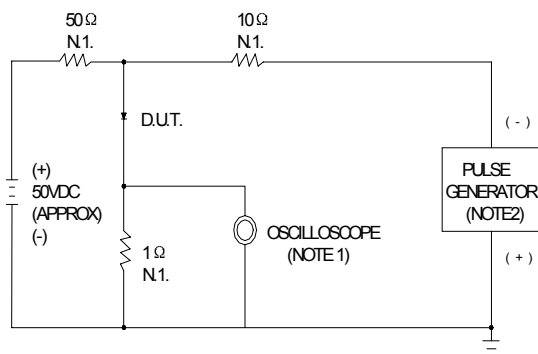
NOTE:1. Measured with $I_F=0.5A$, $I_R=1A$, $t_{rr}=0.25A$.

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

3. Thermal resistance from junction to ambient.

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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

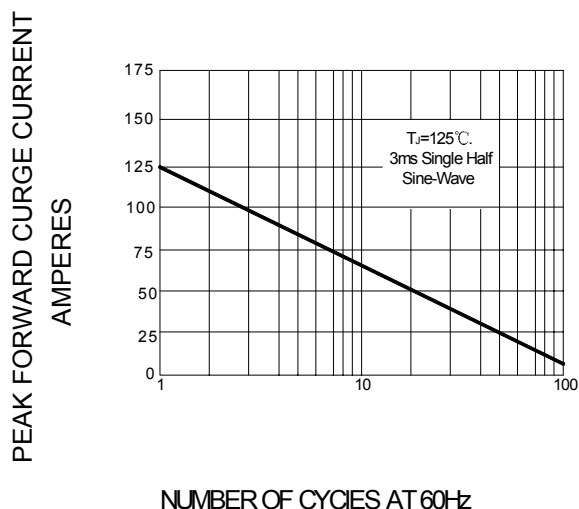


FIG.3-TYPICAL FORWARD CHARACTERISTICS

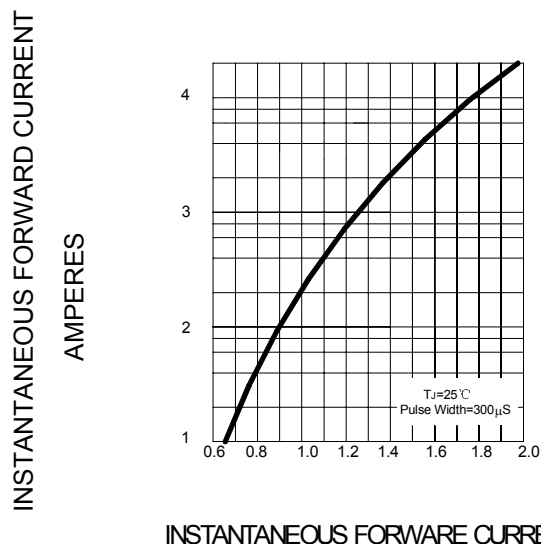


FIG.4-FORWARD CURRENT DERATING CURVE

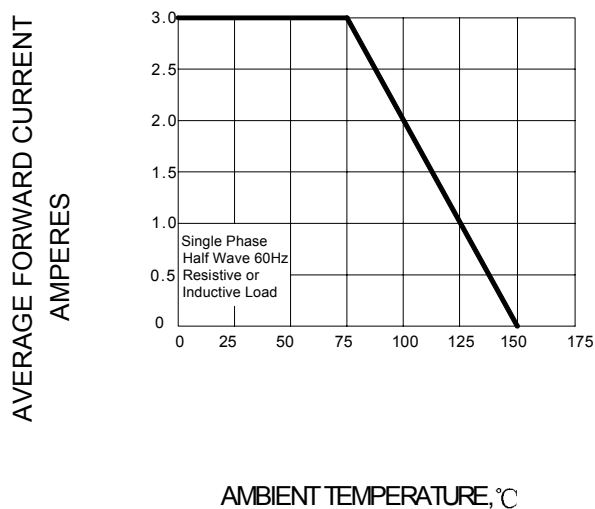


FIG.5-TYPICAL REVERSE CHARACTERISTICS

