



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

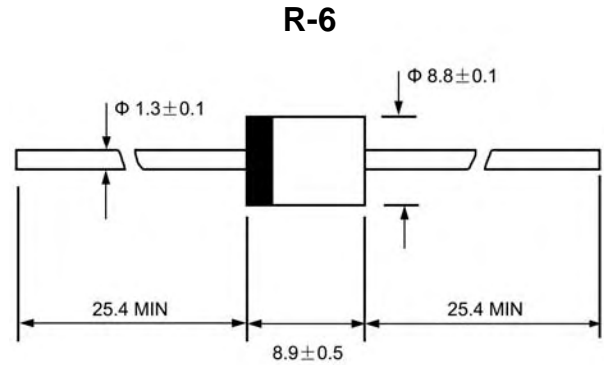


Features

- ◇ 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



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%.

Parameter	Symbol	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 forward rectified current 9.5mm lead length, @ $T_A=55^\circ\text{C}$	$I_{F(AV)}$	5.0							A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load @ $T_J=125^\circ\text{C}$	I_{FSM}	300							A
Maximum instantaneous forward voltage @ 5.0 A	V_F	1.3							V
Maximum reverse current @ $T_A=25^\circ\text{C}$ at rated DC blocking voltage @ $T_A=100^\circ\text{C}$	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							$^\circ\text{C}/\text{W}$
Operating junction temperature range	T_J	- 55 --- +155							$^\circ\text{C}$
Storage temperature range	T_{STG}	- 55 --- + 155							$^\circ\text{C}$

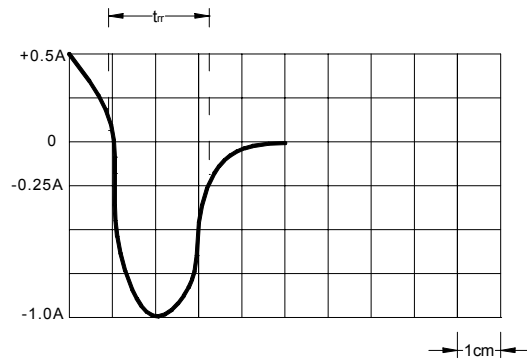
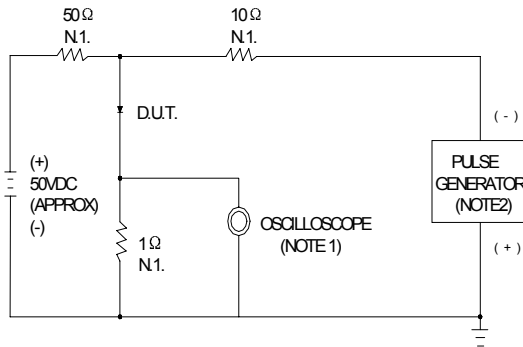
NOTE:1. Measured with $I_F=0.5\text{A}$, $I_R=1\text{A}$, $t_{rr}=0.25\text{A}$.

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

3. Thermal resistance from junction to ambient.

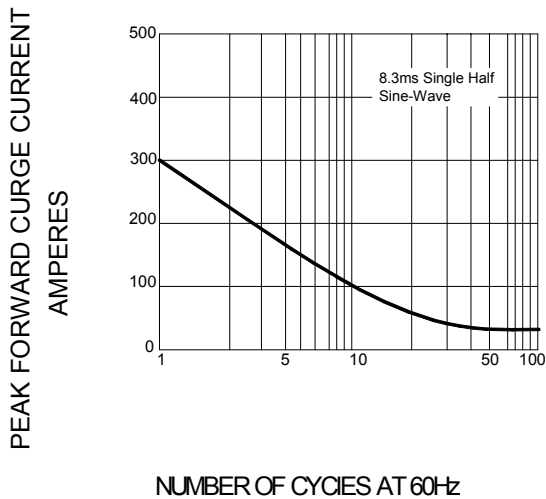
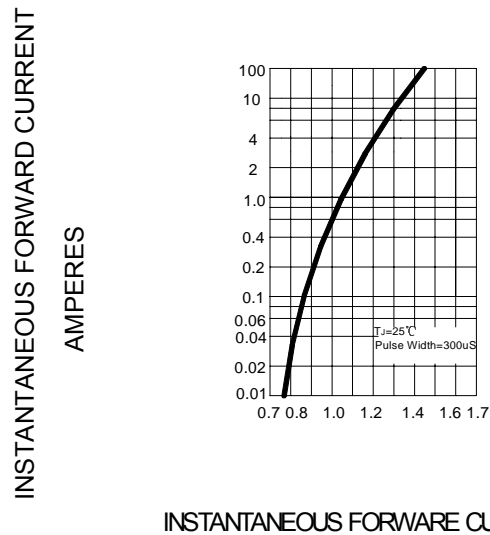
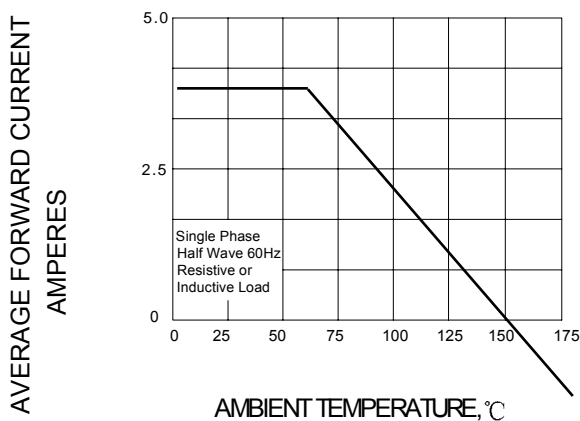
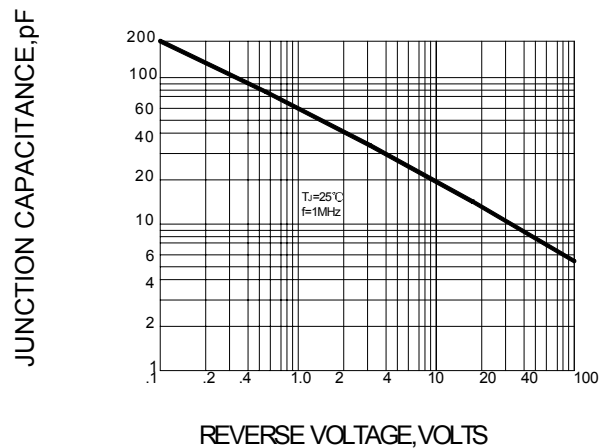


Ratings AND Characteristic Curves

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 FORWARD CHARACTERISTICS

FIG.4–FORWARD CURRENT DERATING CURVE

FIG.5–TYPICAL REVERSE CHARACTERISTICS


PACKAGE	SPQ/PCS	CARTON SPQ/PCS	CARTON SIZE/CM	CARTON GW/KG	CARTON NW/KG
R-6	500/AMMO	5000	44X28X31	12.00	10.00