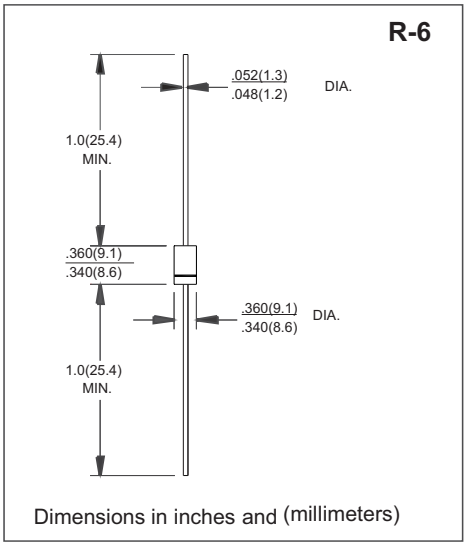
FR601G - FR607G

Voltage Range - 50 to 1000 V
Forward Current - 6 Ampere

GLASS PASSIVATED FAST RECOVERY RECTIFIER

FEATURES

- Fast switching for high efficiency
- Glass passivated chip junction
- High current surge capability
- Low leakage
- High temperature soldering guaranteed
  260℃/10 seconds,0.375”(9.5mm)lead length at 5 lbs (2.3kg) tension



MECHANICAL DATA

- Case: Transfer molded plastic
- Epoxy: UL94V-0 rate flame retardant
- Polarity: Color band denotes cathode end
- Lead: Plated axial lead, solderable per MIL-STD-202E method 208C
- Mounting position: Any
- Weight: 0.07 ounce, 2.0 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

- Ratings at 25℃ ambient temperature unless otherwise specified Single Phase, half wave, 60Hz, resistive or inductive load for capacitive load derate current by 20%

	SYMBOLS	FR 601G	FR 602G	FR 603G	FR 604G	FR 605G	FR 606G	FR 607G	UNIT
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Current 0.375″ (9.5mm) lead length at T_A =75℃	$I_{(AV)}$	6.0							Amps
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	300							Amps
Maximum Instantaneous Forward Voltage at 6.0A	V_F	1.3							Volts
Maximum DC Reverse Current at rated DC Blocking Voltage T_A = 25℃	I_R	10							μA
Maximum DC Reverse Current at rated DC Blocking Voltage T_A = 125℃	I_R	500							μA
Maximum Reverse Recovery Time(NOTE 3)	t_{rr}	150				250	500		nS
Typical Junction Capacitance (NOTE 1)	C_J	90							pF
Typical Thermal Resistance (NOTE 2)	$R_{\theta JA}$	10							℃/W
Operating Temperature Range	T_J	(-55 to +150)							℃
Storage Temperature Range	T_{STG}	(-55 to +150)							℃

Notes:
1. Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts.
2. Thermal Resistance from Junction to Ambient at.375″(9.5mm) lead length, P.C board mounted.
3. Test conditions: I_F=0.5A, I_R=1.0A, I_{RR}=0.25A.

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RATING AND CHARACTERISTIC CURVES FR601G - FR607G

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

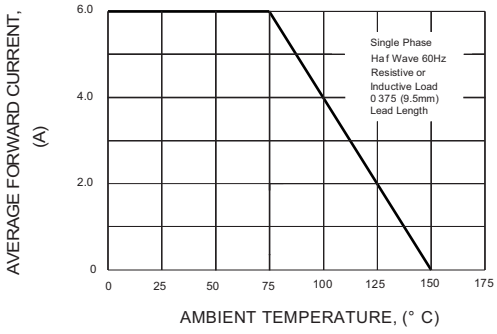


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

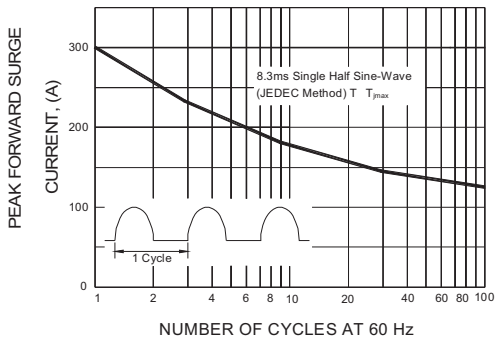


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

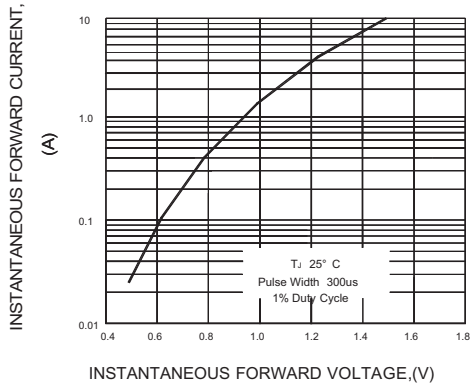


FIG.4-TYPICAL REVERSE CHARACTERISTICS

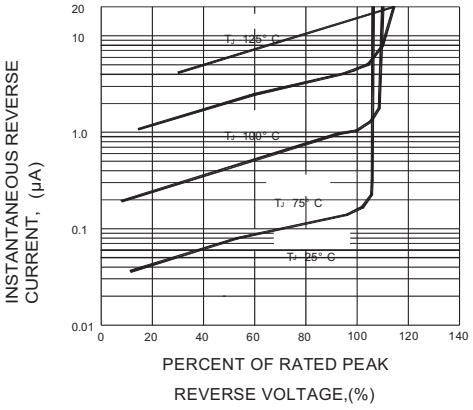
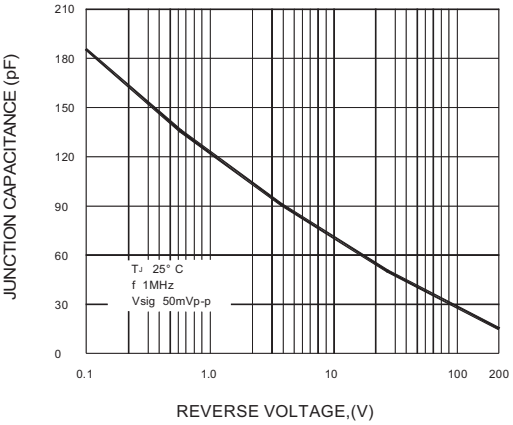
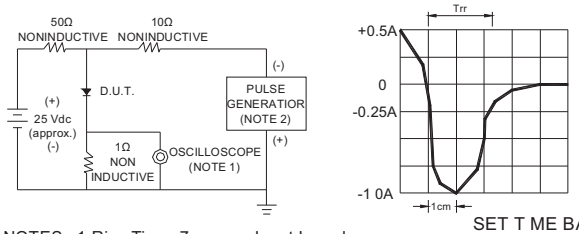


FIG 5-TYPICAL JUNCTION CAPACITANCE



F1G.6-TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



NOTES : 1.Rise Time=7ns mas. Input Impedance= 1 magohm. 22pF
2.Rise time=10ns max. Source Impedance= 50 ohms

SET T ME BASE FOR 50/100ns/cm

Disclaimer

All product, product specifications and data are subject to change without notice to improve reliability, function or design or otherwise.

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