



DC COMPONENTS CO., LTD.

RECTIFIER SPECIALISTS

**FR601G
THRU
FR607G**

TECHNICAL SPECIFICATIONS OF FAST RECOVERY GLASS PASSIVATED RECTIFIER

VOLTAGE RANGE - 50 to 1000 Volts

CURRENT - 6.0 Amperes

FEATURES

- * High reliability
- * Low leakage
- * Low forward voltage drop
- * High current capability
- * High switching capability
- * Glass passivated junction

MECHANICAL DATA

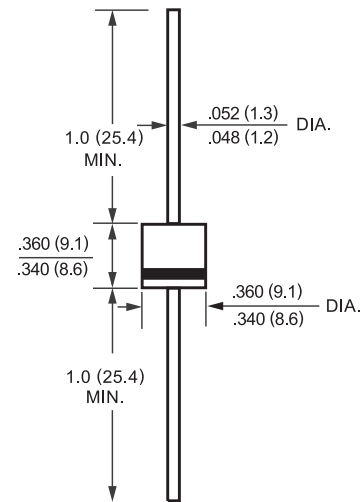
- * Case: Molded plastic
- * Epoxy: UL 94V-0 rate flame retardant
- * Lead: MIL-STD-202E, Method 208 guaranteed
- * Polarity: Color band denotes cathode end
- * Mounting position: Any
- * Weight: 2.08 grams

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 current by 20%.



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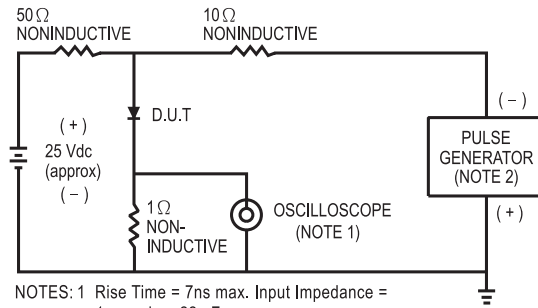


	SYMBOL	FR601G	FR602G	FR603G	FR604G	FR605G	FR606G	FR607G	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Current at $T_A = 55^\circ C$	I_o	6.0							Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	300							Amps
Maximum Instantaneous Forward Voltage at 6.0A DC	V_F	1.3							Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage $T_A = 25^\circ C$	I_R	5.0							μA mps
Maximum Full Load Reverse Current Average, Full Cycle .375*(9.5mm) lead length at $T_L = 55^\circ C$		100							μA mps
Maximum Reverse Recovery Time (Note 1)	t_{rr}	150			250	500		nSec	
Typical Junction Capacitance (Note 2)	C_J	50							pF
Operating and Storage Temperature Range	T_J, T_{STG}	-65 to + 150							$^\circ C$

NOTES : 1. Test Conditions: $I_F = 0.5A, I_R = 1.0A, I_{RR} = 0.25A$
2. Measured at 1 MHz and applied reverse voltage of 4.0 volts

RATING AND CHARACTERISTIC CURVES (FR601G THRU FR607G)

FIG. 1 - TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



NOTES: 1 Rise Time = 7ns max. Input Impedance = 1 megohm, 22 pF.
2. Rise Time = 10ns max. Source Impedance = 50 ohms.

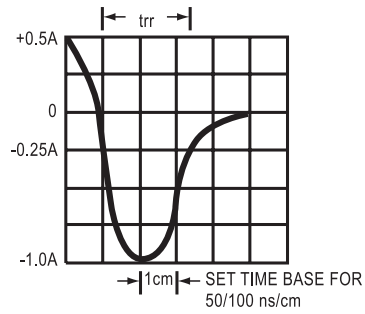


FIG. 2 - TYPICAL FORWARD CURRENT DERATING CURVE

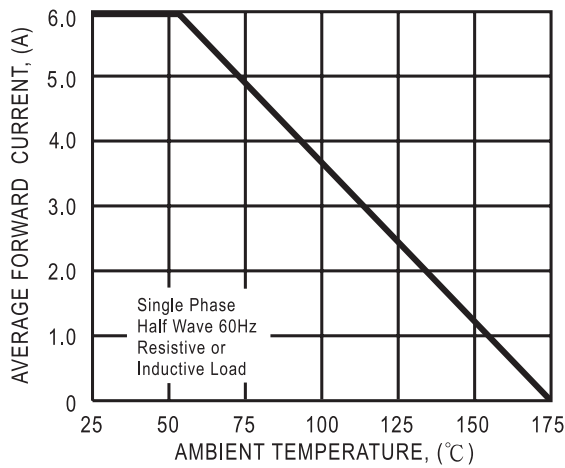


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

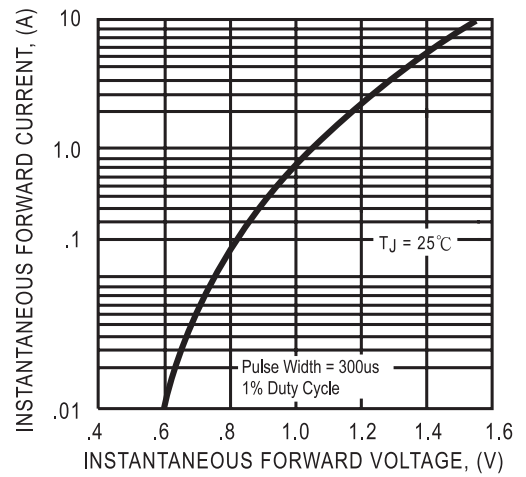


FIG. 4 - TYPICAL JUNCTION CAPACITANCE

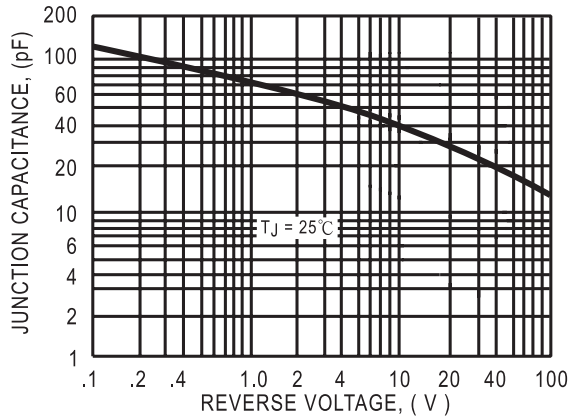
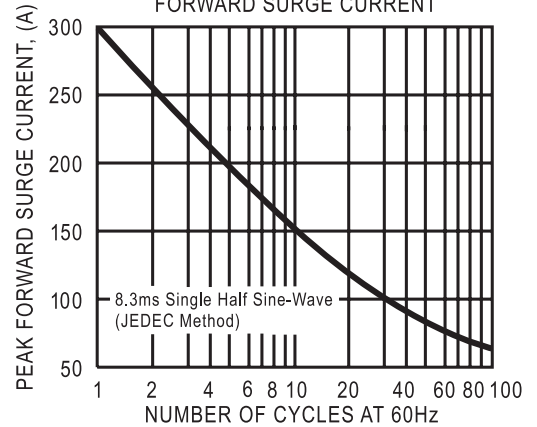


FIG. 5 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT



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