



DC COMPONENTS CO., LTD.

RECTIFIER SPECIALISTS

FR601G
THRU
FR607G

TECHNICAL SPECIFICATIONS OF FAST RECOVERY RECTIFIER

VOLTAGE RANGE - 50 to 1000 Volts

CURRENT - 6.0 Amperes

FEATURES

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

MECHANICAL DATA

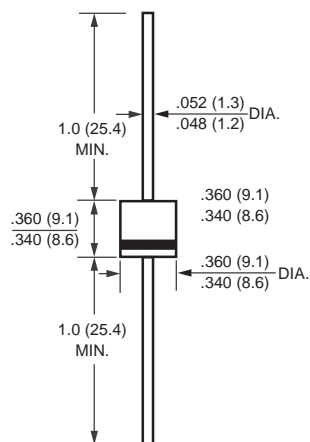
- * Case: Molded plastic
- * Epoxy: UL 94V-0 rated flame retardant
- * Lead: MIL-STD-202E, Method 208 guaranteed
- * Mounting position: Any
- * Weight: 2.08 gram approx.

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating 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%.



R-6



Dimensions in inches and (millimeters)

	SYMBOL	FR601G	FR602G	FR603G	FR604G	FR605G	FR606G	FR607G	UNITS
Maximum Recurrent Peak Reverse Voltage	VRRM	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage	VRMS	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	VDC	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Current at TA = 55°C	Io	6.0							Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)	IFSM	300							Amps
Maximum Instantaneous Forward Voltage at 6.0A DC	VF	1.3							Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage TA=25°C	IR	10							μAmps
Maximum Full Load Reverse Current Average, Full Cycle .375"(9.5mm) lead length at T L = 55°C		150							
Maximum Reverse Recovery Time (Note 1)	trr	150				250	500		nSec
Typical Junction Capacitance (Note 2)	CJ	150							pF
Operating and Storage Temperature Range	TJ, TSTG	-55 to +150							°C

NOTES : 1. Test Conditions: I_F = 0.5A, I_R = 1.0A, I_{RR} = 0.25A

2. Measured at 1MHz and applied reverse voltage of 4.0 volts

RATING AND CHARACTERISTIC CURVES (FR601G THRU FR607G)

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

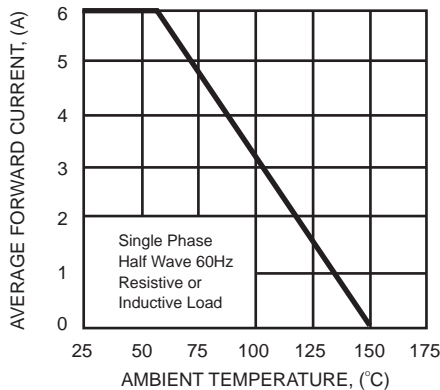


FIG. 2 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

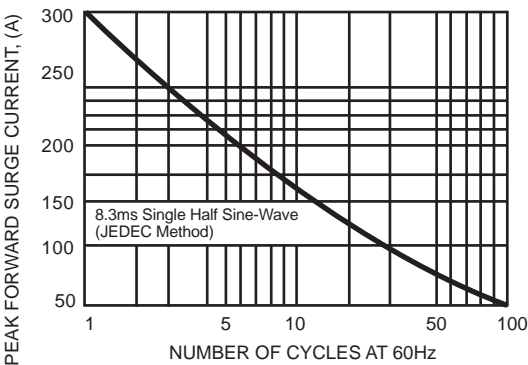


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

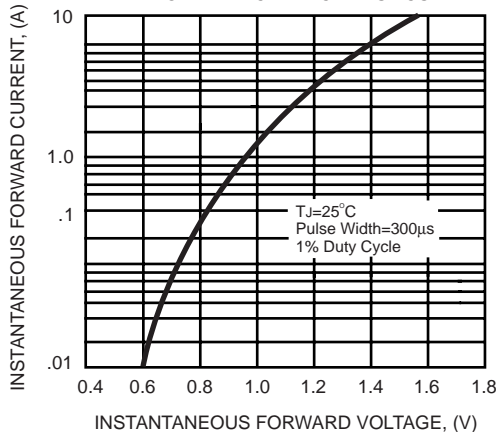


FIG. 4 - TYPICAL JUNCTION CAPACITANCE

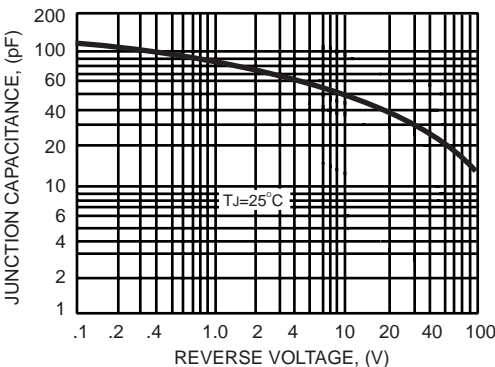
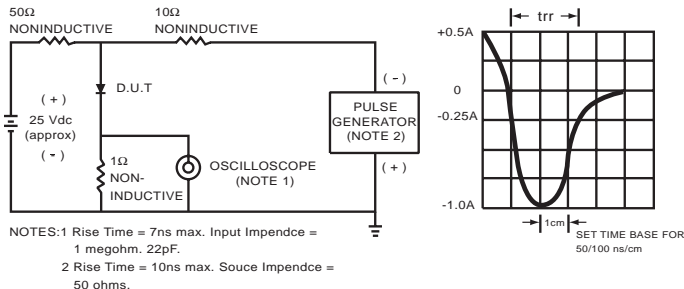


FIG. 5 - TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



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