DC COMPONENTS CO., LTD.

RECTIFIER SPECIALISTS

FR601 THRU FR607

TECHNICAL SPECIFICATIONS OF FAST RECOVERY RECTIFIER

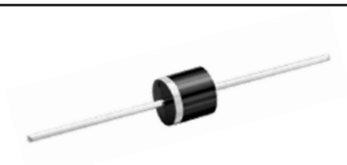
VOLTAGE RANGE - 50 to 1000 Volts *CURRENT - 6.0 Amperes*

FEATURES

* Fast switching
* Low leakage
* Low forward voltage drop
* High current capability
* High current surge
* High reliability

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.



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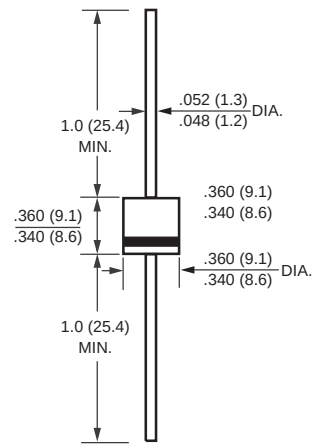


Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS
Rating at 25°C ambient tempature unless ohterwise specified
Single phase, half wave 60 HZ, resistive or inductive load.
For capacitive load, derate current by 20%.

	SYMBOL	FR601	FR602	FR603	FR604	FR605	FR606	FR607	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°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°C	I_R	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)	C_J	150							pF
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to +150							°C

NOTES : 1. Test Conditions: IF = 0.5A, IR = 1.0A, IRR = 0.25A
2. Measured at 1MHz and applied reverse voltage of 4.0 volts

RATING AND CHARACTERISTIC CURVES (FR601 THRU FR607)

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

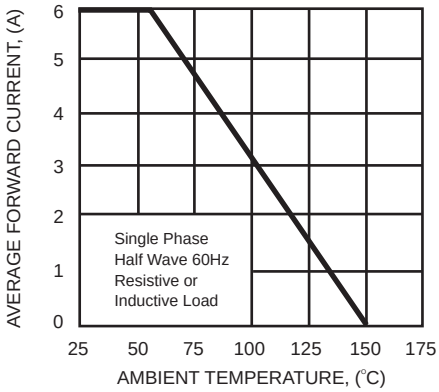


FIG. 2 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

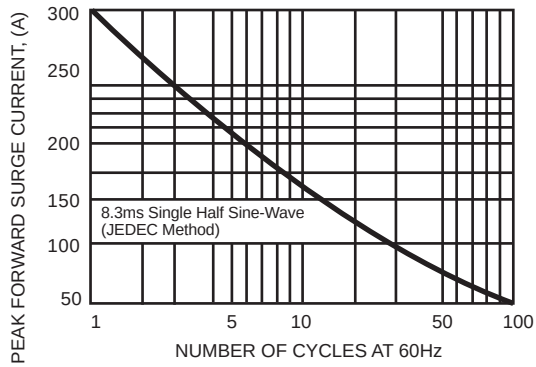


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

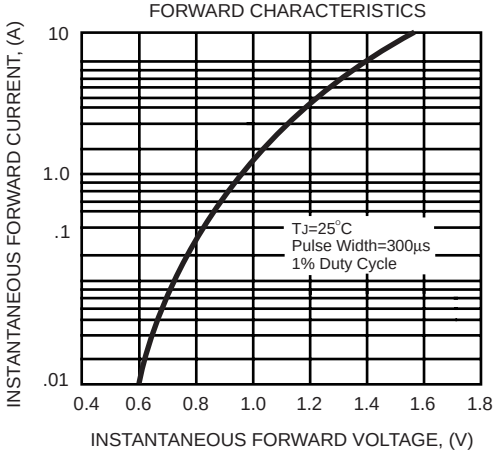


FIG. 4 - TYPICAL JUNCTION CAPACITANCE

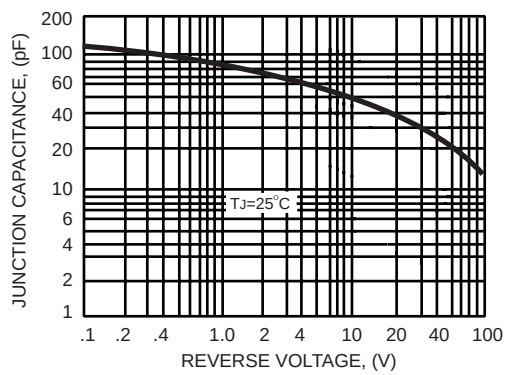
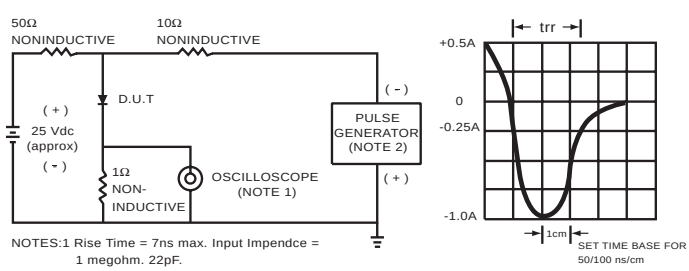


FIG. 5 - TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARAC TERISTIC



NOTES:1 Rise Time = 7ns max. Input Impendce = 1 megohm. 22pF.
2 Rise Time = 10ns max. Souce Impendce = 50 ohms.

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