

Fast Recovery Rectifier

FR601-G thru FR607-G (RoHS Device)

Voltage Range 50 to 1000 V

Current 6.0 Ampere

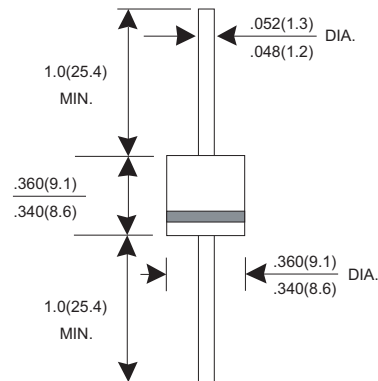
Features

- * Fast switching for high efficiency
- * Low forward voltage drop
- * High current capability
- * Low reverse leakage current
- * High surge current capability

Mechanical Data

- * Case: Molded plastic P600
- * Epoxy: UL 94V-0 rate flame retardant
- * Terminals: Solderable per MIL-STD-202 method 208
- * Polarity: Color band denotes cathode
- * Mounting position: Any
- * Weight: 2.1 grams

P600



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

	SYMBOL	FR601 -G	FR602 -G	FR603 -G	FR604 -G	FR605 -G	FR606 -G	FR607 -G	UNIT
Maximum Recurrent Peak Reverse Voltage	VRRM	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	VRMS	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	VDC	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current $T_L=55^\circ\text{C}$	IF(AV)	6.0							A
Peak Forward Surge Current, 8.3ms single Half sine-wave superimposed on rated load (JEDEC method)	IFSM	300							A
Maximum Instantaneous Forward Voltage @ 6.0 A	VF	1.3							V
Maximum DC Reverse Current @ $T_J=25^\circ\text{C}$ At Rated DC Blocking Voltage @ $T_J=100^\circ\text{C}$	IR	5.0 500							uA uA
Maximum Reverse Recovery Time (Note 1)	Trr	150				250	500		nS
Typical junction Capacitance (Note 2)	CJ	100							pF
Maximum Thermal Resistance (Note 3)	RθJA	55							°CW
Operating Junction and Storage Temperature Range	TJ, TSTG	-55 to + 125							°C

NOTES : (1) Reverse recovery test conditions $I_F = 0.5A$, $I_R = 1.0A$, $I_{rr} = 0.25A$.
(2) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts DC.
(3) Thermal Resistance junction to lead.

“-G” suffix designates RoHS compliant Version

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RATINGS AND CHARACTERISTIC CURVES FR601-G THRU FR607-G

FIG.1 - FORWARD CURRENT DERATING CURVE

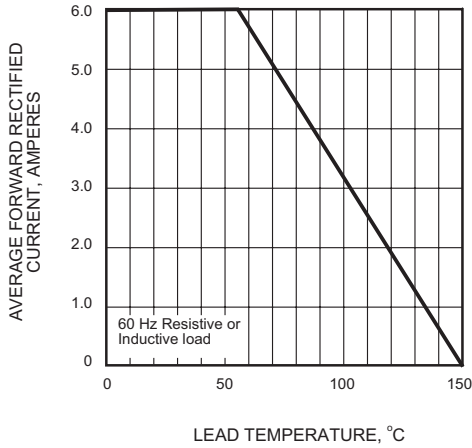


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

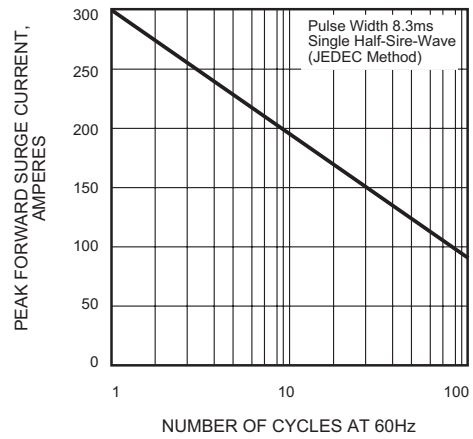


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

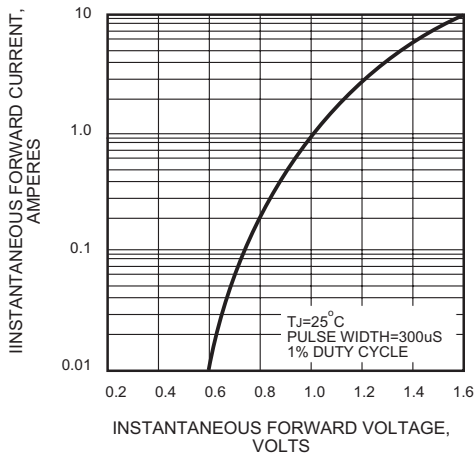


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

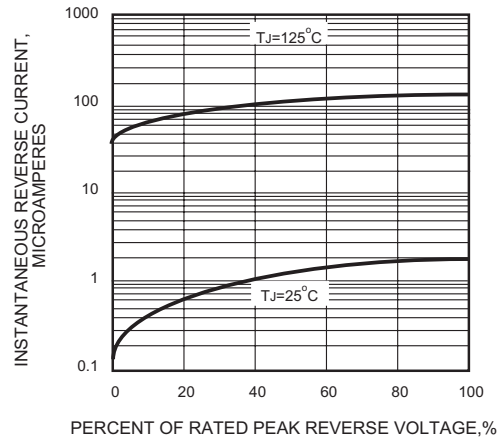
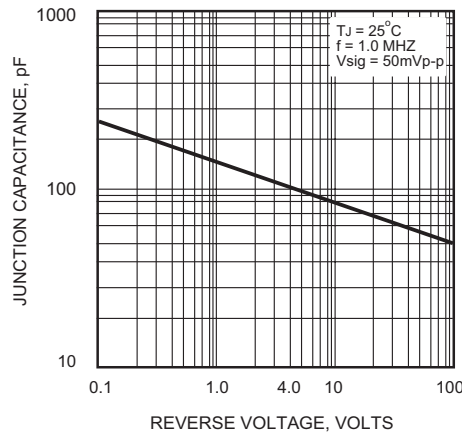


FIG.5 - TYPICAL JUNCTION CAPACITANCE



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