



FAST RECOVER RECTIFIER

FR601S THRU FR607S

VOLTAGE RANGE
CURRENT

50 to 1000 Volts
6.0Ampere

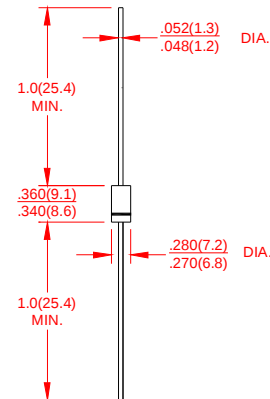
R-6S

FEATURES

- Low coat construction
- Fast switching for high efficiency.
- Low reverse leakage
- High forward surge current capability
- High temperature soldering guaranteed:
260°C/10 secods/.375"(9.5mm)lead length at 5 lbs(2.3kg) tension

MECHANICAL DATA

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



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

	SYMBOLS	FR 601S	FR 602S	FR 603S	FR 604S	FR 605S	FR 606S	FR 607S	UNITS	
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°C	I _(AV)	6.0							Amp	
Peak Forward Surge Current 8.3mS single half sine wave superimposed on rated load (JEDEC method)	I _{FSM}	250							Amps	
Maximum Instantaneous Forward Voltage @ 6.0A	V _F	1.3							Volts	
Maximum DC Reverse Current at Rated DC Blocking Voltage	T _A = 25°C	I _R	10							µA
	T _A = 100°C		500							
Maximum Reverse Recovery Time (Note 3) T _J =25°C	trr	150				250	500		ns	
Typical Junction Capacitance (Note 1)	C _J	150							pF	
Typical Thermal Resistance (Note 2)	R _{θJA}	10							°C/W	
Operating Junction Temperature Range	T _J	(-55 to +150)							°C	
Storage Temperature Range	T _{STG}	(-55 to +150)							°C	

Notes:

1. Measured at 1.0MHz and Applied Reverse Voltage of 4.0Volts.
2. Thermal Resistance from junction to Ambient at .375"(9.5mm)lead length, P.C.board mounted.
3. Reverse Recovery Test Conditions: $I_f = 0.5\text{mA}$, $I_r = 1.0\text{mA}$, $I_{rr} = 0.25\text{A}$



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RATING AND CHARACTERISTIC CURVES FR601S THRU FR607S

FIG.1-TYPICAL FORWARD CURRENT
DERATING CURVE

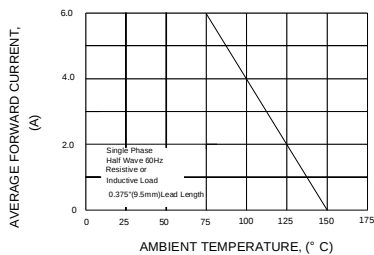


FIG.2-MAXIMUM NON-REPETITIVE PEAK
FORWARD SURGE CURRENT

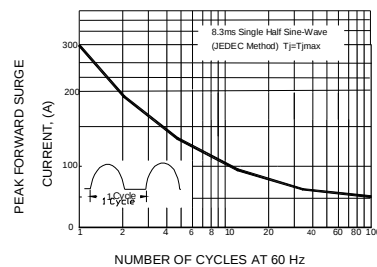


FIG.3-TYPICAL INSTANTANEOUS
FORWARD CHARACTERISTICS

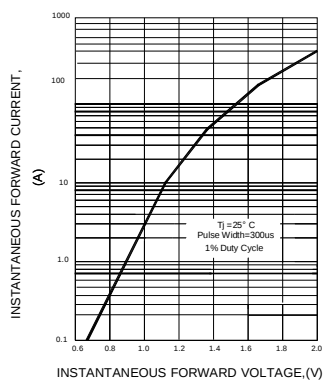


FIG.4-TYPICAL REVERSE
CHARACTERISTICS

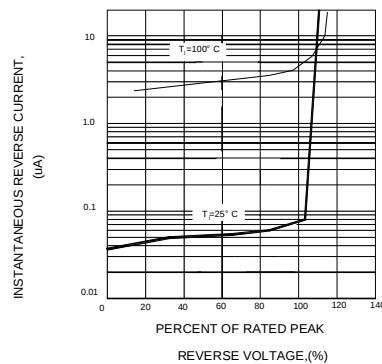


FIG.5-TYPICAL JUNCTION CAPACITANCE

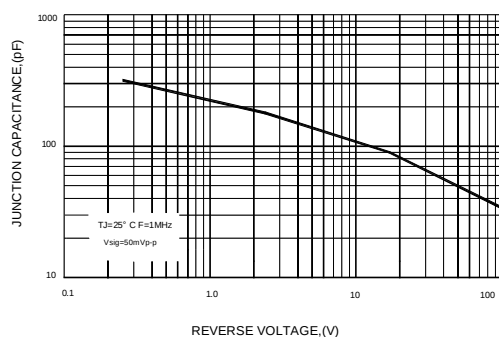


FIG.6-TYPICAL THERMAL RESISTANCE
VS LEAD LENGTH

