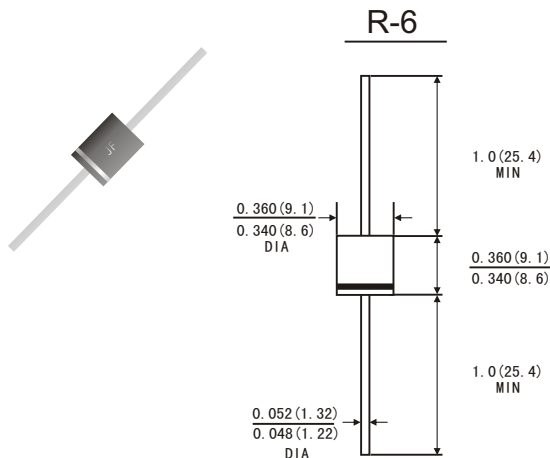


## FEATURES

- Low leakage
- Low forward voltage drop
- High current capability
- High current surge
- High reliability
- High temperature soldering guaranteed: 260°C/10 seconds at terminals
- Component in accordance to RoHS 2002/95/EC and WEEE 2002/96/EC

## MECHANICAL DATA

- *Case*: R-6 molded plastic body
- *Terminals*: Plated axial leads, solderable per MIL-STD-750, Method 2026
- *Polarity*: Color band denotes cathode end
- *Mounting Position*: Any
- *Weight*: 0.074 OUNCE, 2.08 grams



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%.)

	Symbols	FR 601	FR 602	FR 603	FR 604	FR 605	FR 606	FR 607	Units	
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	Volts	
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	Volts	
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	Volts	
Maximum Average Forward Rectified Current 0.375"(9.5mm) lead length at T <sub>A</sub> =55°C	I <sub>(AV)</sub>	6.0							Amps	
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I <sub>FSM</sub>	200							Amps	
Maximum Instantaneous Forward Voltage at 6.0A	V <sub>F</sub>	1.2							Volts	
Maximum DC Reverse Current at rated DC blocking voltage	T <sub>A</sub> =25°C	I <sub>R</sub>	10.0							μA
	T <sub>A</sub> =100°C		200							
Maximum reverse recovery time(Note1)	t <sub>rr</sub>	150				250	500		ns	
Typical junction capacitance(Note2)	C <sub>J</sub>	100							pF	
Operating junction and storage temperature range	T <sub>J</sub> T <sub>STG</sub>	-65 to +150							°C	

Note: 1. Test conditions: I<sub>F</sub>=0.5A, I<sub>R</sub>=1.0A, I<sub>RR</sub>=0.25A.

2. Measured at 1MHz and applied reverse voltage of 4.0 Volts D.C.

# RATINGS AND CHARACTERISTIC CURVES FR601 THRU FR607

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

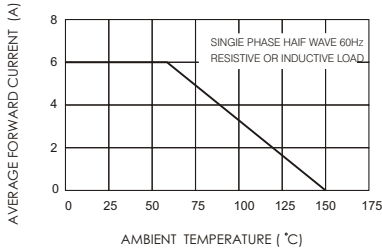


FIG.2-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

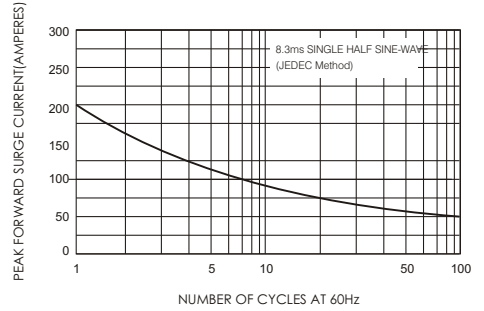


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

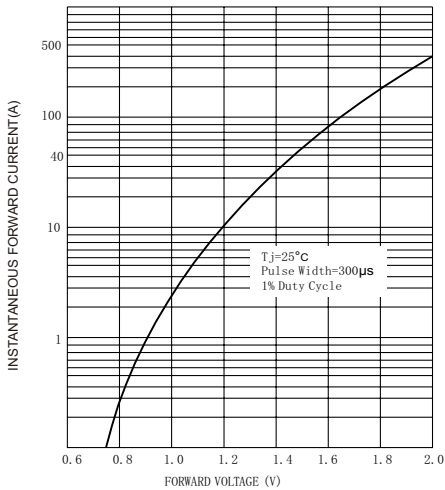


FIG.4-TYPICAL JUNCTION CAPACITANCE

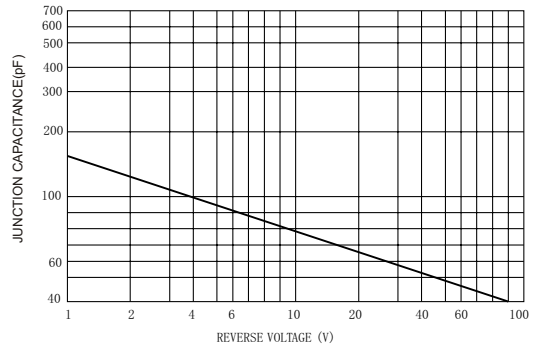
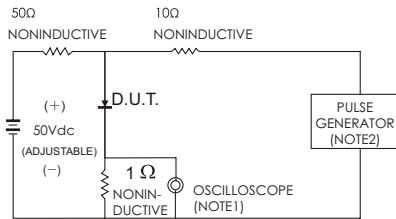


FIG.5-TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



NOTES: 1. Rise Time=7ns max. input Impedance=1 megohm 22pF  
 2. Rise Time=10ns max. source Impedance=50 ohms

