

# FR1001G~FR1007G

## FAST RECOVERY PLASTIC RECTIFIER

**VOLTAGE** 50 to 1000 Volt **CURRENT** 10 Ampere

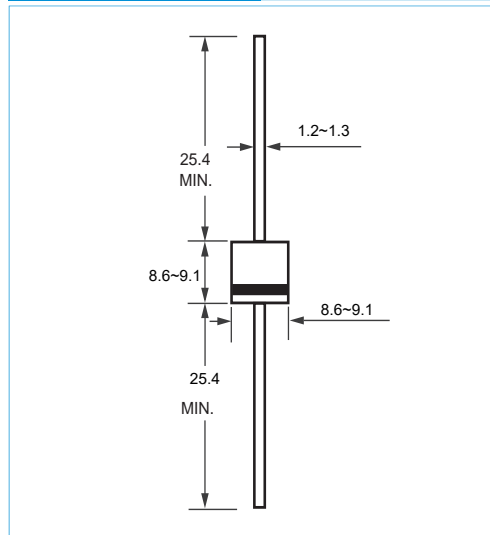
**R-6** Unit:mm

### FEATURES

- Low Forward Voltage Drop
- Glass passivated chip junction
- High Current Capability
- High Reliability
- High Surge Current Capability
- Lead free in compliance with EU RoHS

### MECHANICAL DATA

- Case Material: Molded Plastic.
- UL Flammability Classification Rating 94V-0



## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

PARAMETER	SYMBOL	FR1001G	FR1002G	FR1003G	FR1004G	FR1005G	FR1006G	FR1007G	UNITS
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	800	1000	V
Maximum Average Forward Current (see FIG.1)	$I_{F(AV)}$	10							A
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load	$I_{FSM}$	250							A
Maximum Forward Voltage at 10 A	$V_F$	1.3							V
Maximum DC Reverse Current at Rated DC Blocking Voltage	$I_R$	10 150							$\mu A$
Typical Junction Capacitance (Note1)	$t_{rr}$	150				250	500		ns
Reverse Recovery Time (Note 2)	$C_J$	150							pF
Thermal Resistance	$R_{\theta JA}$	10							$^{\circ}C / W$
Operating Junction Temperature Range	$T_J$	-55 to +150							$^{\circ}C$
Storage Temperature Range	$T_{STG}$	-55 to +150							$^{\circ}C$

### NOTES:

1. Measured at 1.0MHz and applied reverse voltage of 4.0 volt
2. Measured with  $I_F = 0.5A$ ,  $I_R = 1.0A$ ,  $IRR = 0.25A$ .

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## RATING AND CHARACTERISTIC CURVES

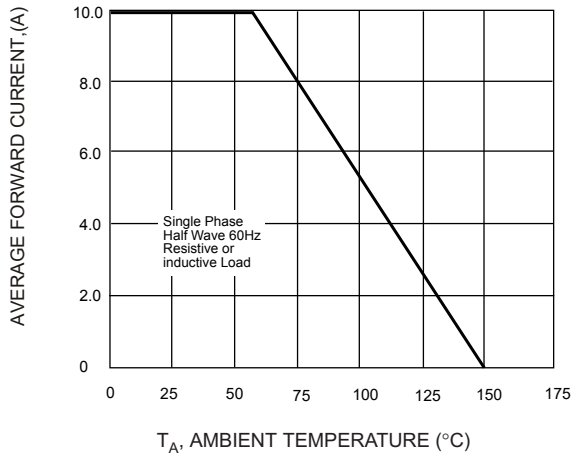


Fig. 1 Forward Derating Curve

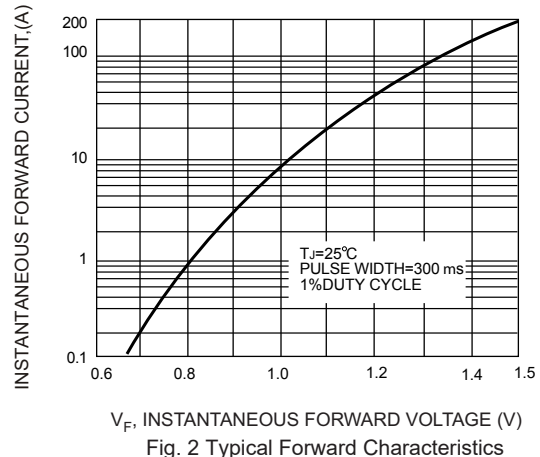


Fig. 2 Typical Forward Characteristics

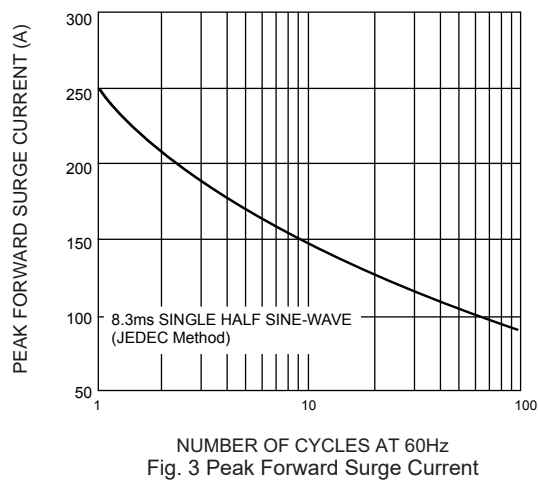


Fig. 3 Peak Forward Surge Current

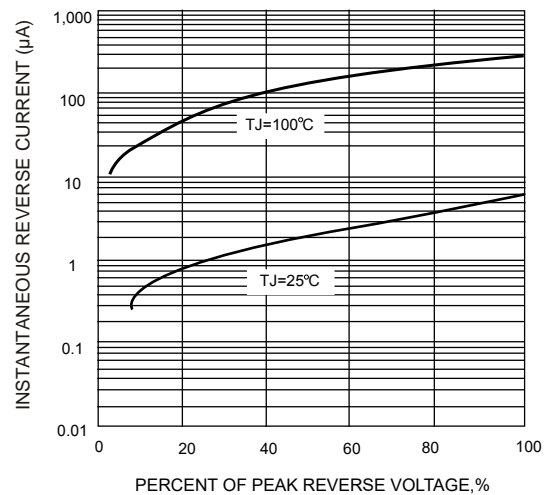


Fig. 4 TYPICAL REVERSE CHARACTERISTICS

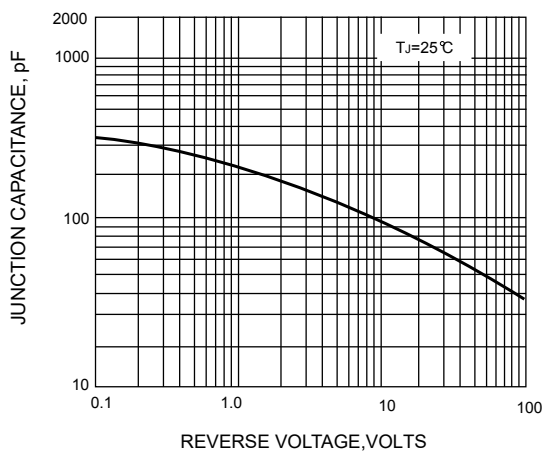


Fig. 4 Typical Junction Capacitance

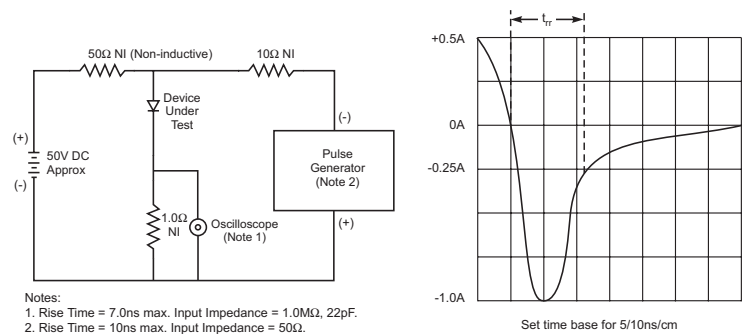


Fig. 5 Reverse Recovery Time Characteristic and Test Circuit

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### ORDER INFORMATION

- Packing information

Part Number	Case	Reel Size	QUANTITY
FR1001G~FR1007G	R-6	13 Inch	500