

FR151G~FR157G

FAST RECOVERY PLASTIC RECTIFIER

VOLTAGE 50 to 1000 Volt **CURRENT** 1.5 Ampere

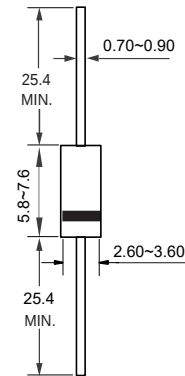
DO-15 Unit:mm

FEATURES

- Low Forward Voltage Drop
- Glass Passivated Junction
- High Current Capability
- High R eliability
- 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	FR151G	FR152G	FR153G	FR154G	FR155G	FR156G	FR157G	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)}	1.5							A
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load	I _{FSM}	50							A
Maximum Forward Voltage at 1.5 A	V _F	1.3							V
Maximum DC Reverse Current at Rated DC Blocking Voltage	T _J = 25 °C T _J = 100 °C I _R	5.0 100							µA
Typical Junction Capacitance (Note1)	t _{rr}	150				250	500		ns
Reverse Recovery Time (Note 2)	C _J	30							pF
Thermal Resistance	R _{θJA}	35							°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 4.0 volt
2. Measured with $I_F = 0.5A$, $I_R = 1.0A$, $IRR = 0.25A$.

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RATING AND CHARACTERISTIC CURVES

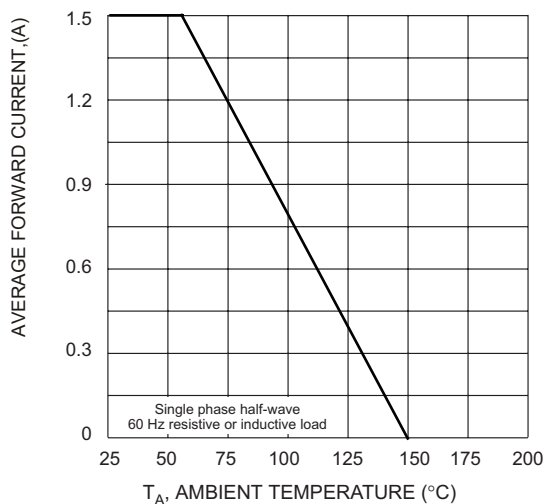


Fig. 1 Forward Derating Curve

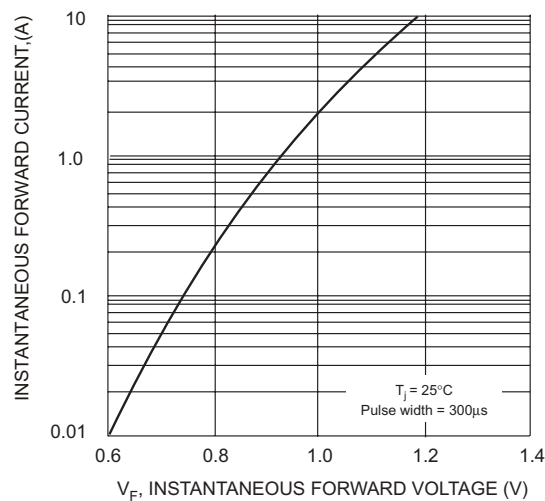


Fig. 2 Typical Forward Characteristics

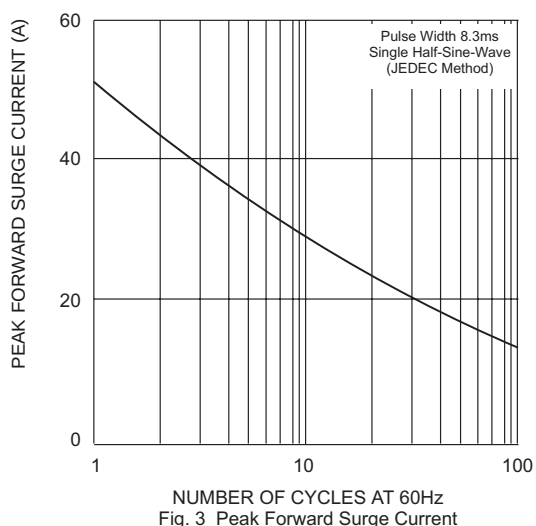


Fig. 3 Peak Forward Surge Current

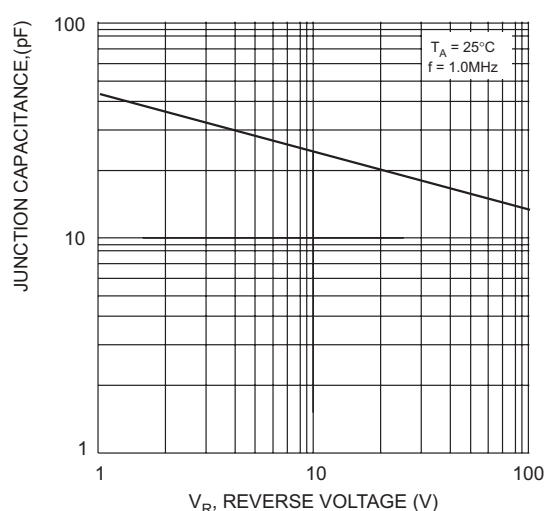
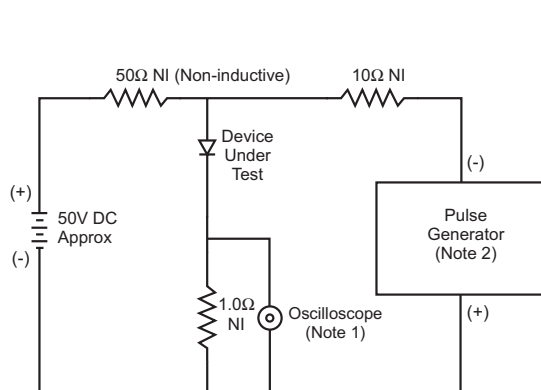
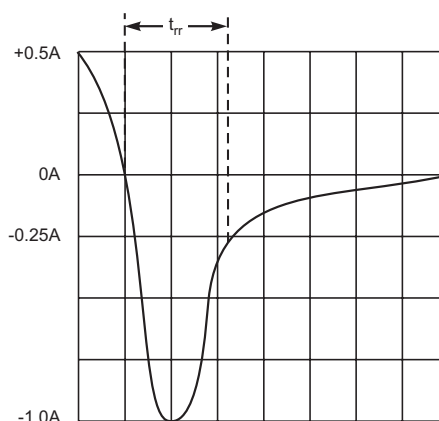


Fig. 4 Typical Junction Capacitance



- Notes:
1. Rise Time = 7.0ns max. Input Impedance = 1.0MΩ, 22pF.
 2. Rise Time = 10ns max. Input Impedance = 50Ω.



Set time base for 5/10ns/cm

Fig. 5 Reverse Recovery Time Characteristic and Test Circuit

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ORDER INFORMATION

- Packing information

Part Number	Case	Reel Size	QUANTITY
FR151G~FR157G	DO-15	13 Inch	4000