

FR151GR THRU FR157GR

1.5AMP. GLASS PASSIVATED FAST RECOVERY RECTIFIERS

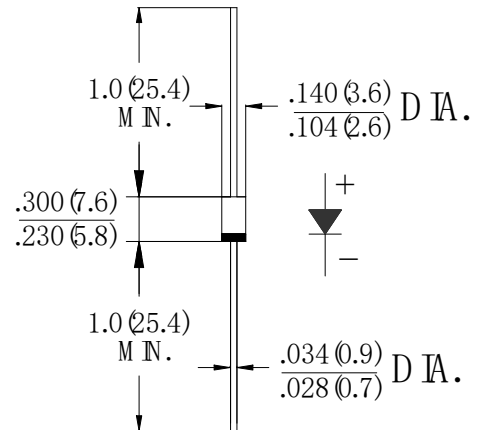
FEATURES

- Fast switching
- Low leakage
- Low forward voltage drop
- High current capability
- High surge capability
- High reliability

MECHANICAL DATA

- Case: Molded plastic
- Epoxy: UL94V-0 rate flame retardant (Free Halogen)
- Lead: MIL-STD- 202E, Method 208 guaranteed
- Polarity: Color band denotes cathode end
- Mounting position: Any

DO-15



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%.

Type Number	SYM BOL	FR 151GR	FR 152GR	FR 153GR	FR 154GR	FR 155GR	FR 156GR	FR 157GR	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 rectified Current Current.375"(9.5mm) lead length @Ta =75°C	$I_{F(AV)}$	1.5							A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rate load (JEDEC method)	I_{FSM}	50							A
Maximum Instantaneous forward Voltage at 1.5A DC	V_F	1.3							V
Maximum DC Reverse Current Ta =25°C at rated DC blocking voltage Ta =100°C	I_R	5.0 100.0							μA
Maximum Reverse Recovery Time (Note 1)	t_{rr}	150			250		500		nS
Typical Junction Capacitance (Note 2)	C_J	15							pF
Storage Temperature	T_{STG}	-55 to +150							°C
Operation Junction Temperature	T_J	-55 to +150							°C

Note:

1. Test Conditions: $I_F=0.5A$, $I_R=1.0A$, $I_{RR}=0.25A$
2. Measured at 1MHz and applied reverse voltage of 4.0 volts d.c.

RATING AND CHARACTERISTIC CURVES (FR151GR THRU FR157GR)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

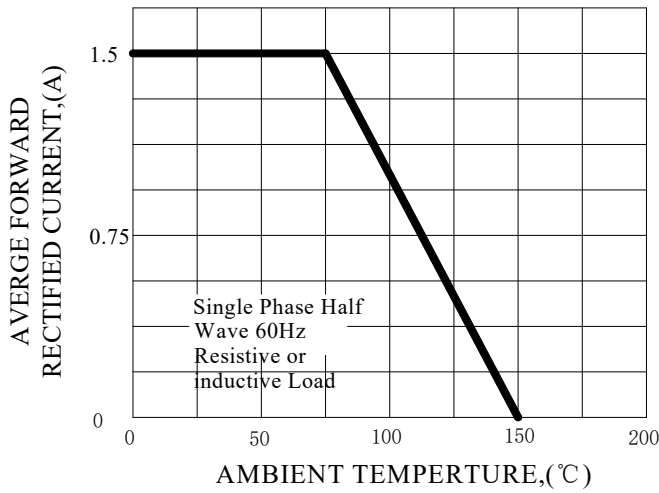


FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

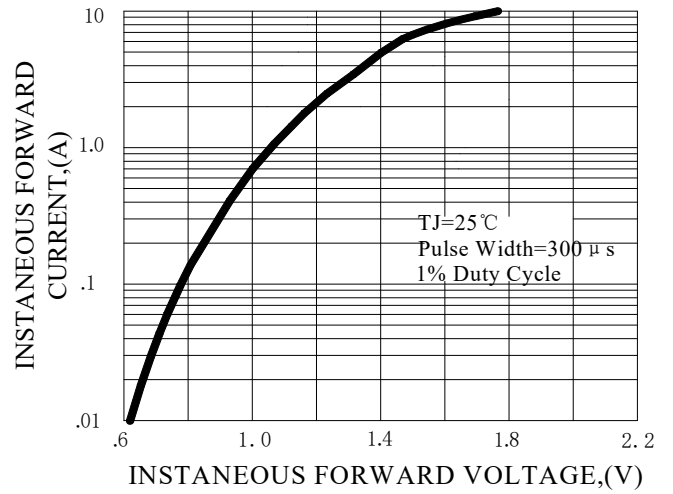


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

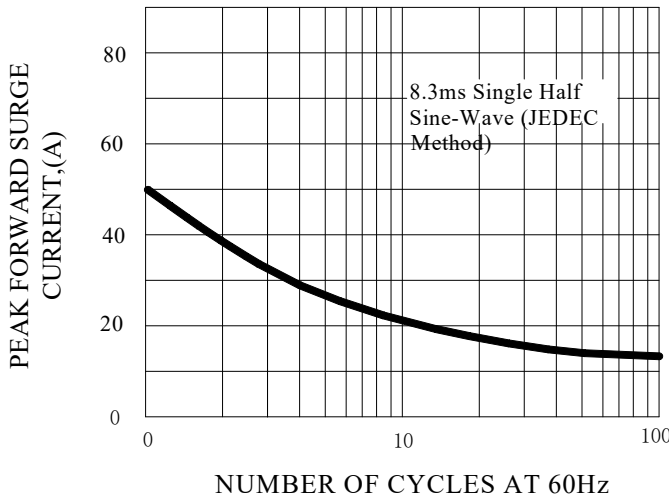


FIG.4-TYPICAL REVERSE CHARACTERISTICS

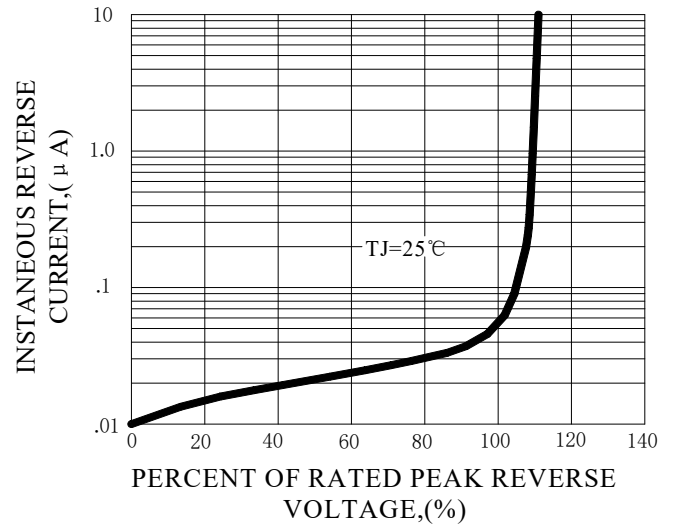
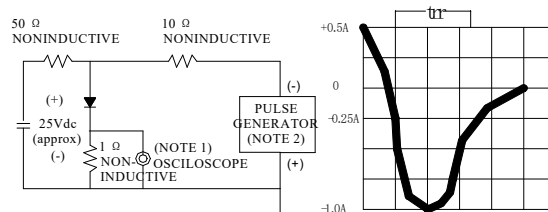


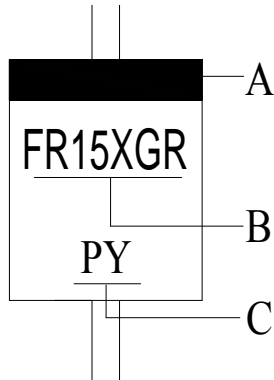
FIG.5-TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



NOTES:1. Rise Time=7ns max, Input Impedance= 1 megohm.22pF.
2. Rise Time=10ns max, Source Impedance= 50 ohms.

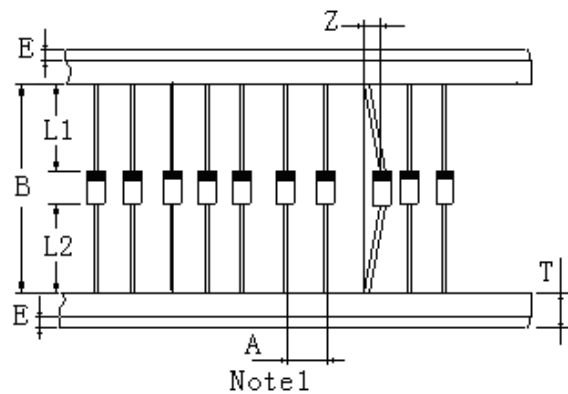
Marking and packaging illustration

1、 Marking



SYMBOL	Explanation
A	Color Band Denotes Cathode
B	Product Name
C	Trademark

2、 Packaging



ITEM	SYMBOL	SPECIFICATIONS	
		(mm)	(inch)
Component alignment	Z	1.2max	0.048max
Tape width	T	5.0±0.4	0.2±0.016
Exposed adhesive	E	0.8max	0.032max
Body eccentricity	L1-L2	1.0max	0.040max
Component	A	5.0±0.5	0.2±0.02
Inner tap	B	52.0~53.5	2.05~2.11

NOTE:

Each component lead shall be sandwiched between tapes for a minimum of 2.5mm (0.1inch)