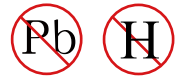




YEA SHIN TECHNOLOGY CO., LTD

FR151G THRU FR157G

FAST SWITCHING GLASS PASSIVATION RECTIFIER
VOLTAGE 50 to 1000 Volts CURRENT - 1.5 Amperes



FEATURES

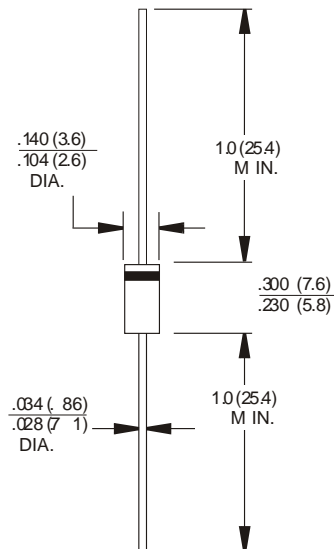
- High current capability .
- Plastic package has Underwriters Laboratory
- Flammability Classification 94V-0 utilizing Flame Retardant Epoxy Molding Compound.
- Low leakage .
- Exceeds environmental standards of MIL-S-19 500/2 28
- 1.5 ampere operation at TA=55°C with no thermal runaway.
- Fast switching for high efficiency .
- High temperature soldering : 260 °C /10 seconds at terminals
- Pb free product at available : 99% Sn above meet RoHS environment substance directive request.

MECHANICAL DATA

- Case : Molded plastic, DO-15
- Terminals: Axial leads, solderable to MIL-STD-202, Method 208
- Polarity: Color Band denotes cathode end
- Mounting Position: Any
- Weight: 0.015 ounce, 0.4 gram

DO-15

Unit: inch(mm)



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Resistive or inductive load, 60Hz.

	FR151G	FR152G	FR153G	FR154G	FR155G	FR156G	FR157G	UNITS
Maximum Recurrent Peak Reverse Voltage	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	30	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	50	100	200	400	600	800	1000	V
Maximum Average Forward Current .375"(9.5mm) lead length at T A=55°C	1.5							A
Peak Forward Surge Current , IFM (surge): 8.3ms single half sine-wave superimposed on rated load(JEDEC method)	50.0							A
Maximum Forward Voltage at 1.5A	1.30							V
Maximum Full Load Reverse Current Full Cycle Average .375",9.5mm Lead Length at TA=25°C	5.0							μA
Maximum DC Reverse Current at Rated DC Blocking Vol tage TA=100°C	500							μA
Maximum Reverse Recovery Time (Note 1)	150				250	500		ns
Typical Junction capacitance (Note 2)	25							pF
Typical Junction Resistance(Note 3) RθJA	45							°C /W
Operating and Storage Temperature Range T J,TSTG	-55 to +150							°C

NOTES : 1. Reverse Recovery Test Conditions: IF=0.5A, IR=1A, Irr=0.25A

2. Measured at 1 MHz and applied reverse voltage of 4.0 VDC

3. Thermal resistance from junction to ambient and from junction to lead length 0.375"(9.5mm) P.C.B. mounted

DEVICE CHARACTERISTICS

FR151G THRU FR157G

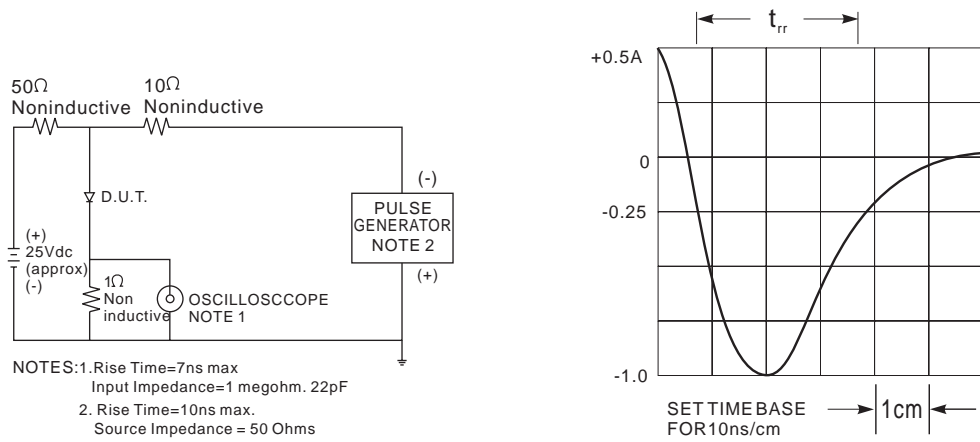


Fig. 1- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

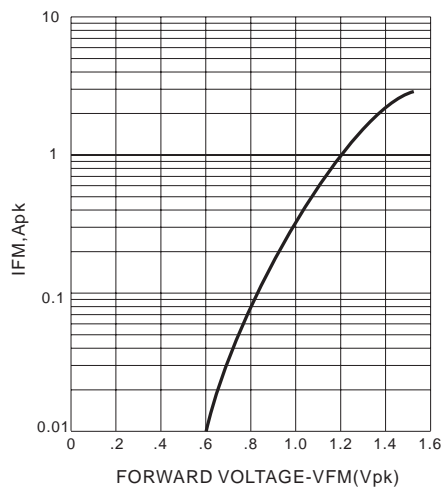


Fig. 2- FORWARD CHARACTERISTICS

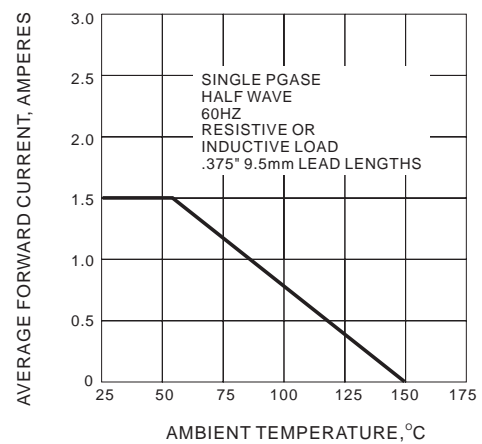


Fig. 3- FORWARD CURRENT DERATING CURVE

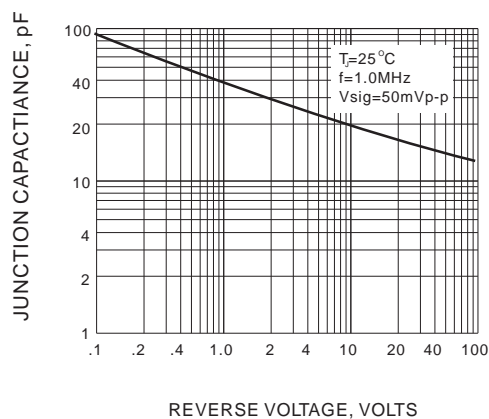


Fig. 4- TYPICAL JUNCTION CAPACITANCE

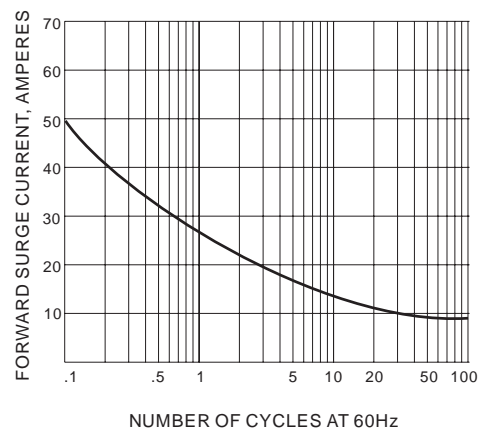


Fig. 5- PEAK FORWARD SURGE CURRENT