

FR151G THRU FR157G

## FAST RECOVERY GLASS PASSIVATED RECTIFIER

# VOLTAGE RANGE 50 to 1000 Volts CURRENT 1.5 Amperes

### **FEATURES**

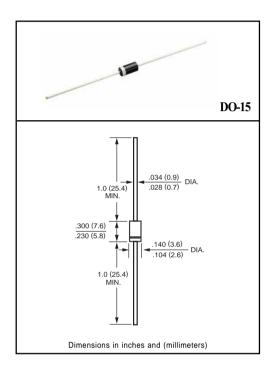
- \* High reliability
- \* Low leakage
- \* Low forward voltage drop
- \* High current capability
- \* Glass passivated junction
- \* High switching capability

### **MECHANICAL DATA**

- \* Case: Molded plastic
- \* Epoxy: Device has UL flammability classification 94V-O
- \* Lead: MIL-STD-202E method 208C guaranteed
- \* Mounting position: Any
- \* Weight: 0.38 gram

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate current by 20%.



#### MAXIMUM RATINGS (At TA = 25°C unless otherwise noted)

RATINGS	SYMBOL	FR151G	FR152G	FR153G	FR154G	FR155G	FR156G	FR157G	UNITS
Maximum Recurrent Peak Reverse Voltage	VRRM	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage	VRMS	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	VDC	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Current at TA = 55°C	lo	1.5							Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	IFSM	60						Amps	
Typical Junction Capacitance (Note 2)	CJ	20						pF	
Operating and Storage Temperature Range	TJ, TSTG	-55 to + 150							٥C

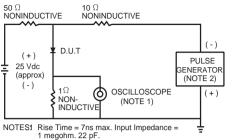
#### ELECTRICAL CHARACTERISTICS (At TA = 25°C unless otherwise noted)

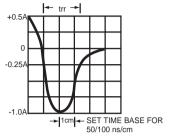
CHARACTERISTICS	SYMBOL	FR151G FR152G FR15	53G FR154G	FR155G	FR156G	FR157G	UNITS
Maximum Instantaneous Forward Voltage at 1.5A DC	VF	1.3					Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage TA = 25°C	la la	5.0					uAmps
Maximum Full Load Reverse Current Average, Full Cycle .375" (9.5mm) lead length at TL = 55°C	IR	100					uAmps
Maximum Reverse Recovery Time (Note 1)	trr	150		250	50	00	nSec

NOTES: 1. Test Conditions: IF = 0.5A, IR = -1.0A, IRR = -0.25A

# RATING AND CHARACTERISTIC CURVES (FR151G THRU FR157G)

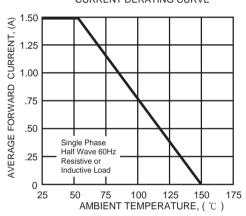
FIG. 1 - TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC





2. Rise Time = 10ns max. Source Impedance =

FIG. 2 - TYPICAL FORWARD **CURRENT DERATING CURVE** 



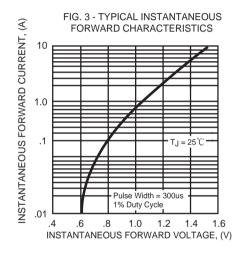


FIG. 4 - TYPICAL JUNCTION CAPACITANCE

