



# FAST RECOVERY GLASS PASSIVATED RECTIFIER FR151G ~ FR157G

## Fast Recovery Glass Passivated Rectifier

### Features

- Fast switching speed for high efficiency
- Glass passivated chip junction
- Low reverse leakage
- High forward surge current capacity
- High temperature soldering guaranteed:  
260°C/10 seconds, 0.375" (9.5mm) lead length
- RoHS and REACH Compliance

### Mechanical Data

<b>Case:</b>	Transfer molded plastic
<b>Polarity:</b>	Color band denots cathode end
<b>Epoxy:</b>	UL94V-0 rate flame retardant
<b>Lead:</b>	Plated axial lead, solderable per MIL-STD-202E method 208C
<b>Mounting position:</b>	Any
<b>Weight:</b>	0.014 ounce, 0.39 gram

### Maximum Ratings ( $T_{Ambient}=25^{\circ}C$ unless noted otherwise)

Symbol	Description	FR151G	FR152G	FR153G	FR154G	FR155G	FR156G	FR157G	Unit	Conditions
<b>VRRM</b>	Max Recurrent Peak Reverse Voltage	50	100	200	400	600	800	1000	V	
<b>VRMS</b>	Max RMS Voltage	35	70	140	280	420	560	700	V	
<b>VDC</b>	Max DC Blocking Voltage	50	100	200	400	600	800	1000	V	
<b>I(AV)</b>	Max Average Forward Rectified Current	1.5							A	TC=50°C
<b>IFSM</b>	Peak Forward Surge Current	60							A	JEDEC method
<b>TJ,TSTG</b>	Operating and Storage Temperature Range	-65 to +175, -65 to +175							°C	
<b>Rθ-JA</b>	Typical Thermal Resistance	50							°C/W	Note 2

### Electrical Characteristics ( $T_{Ambient}=25^{\circ}C$ unless noted otherwise)

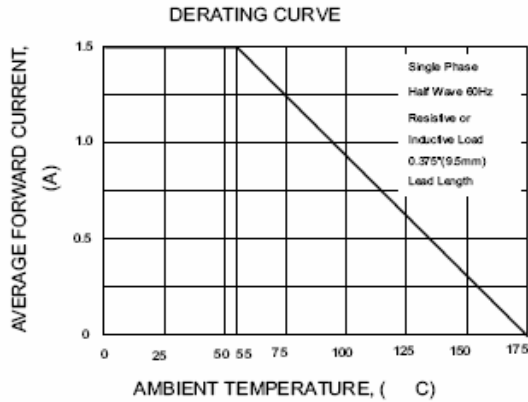
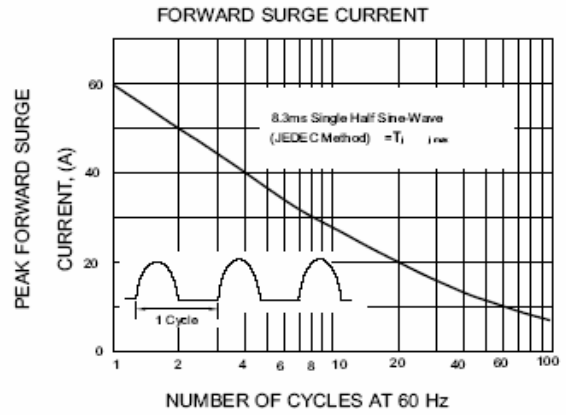
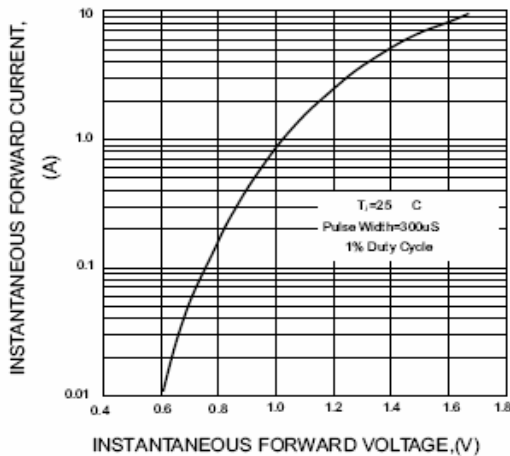
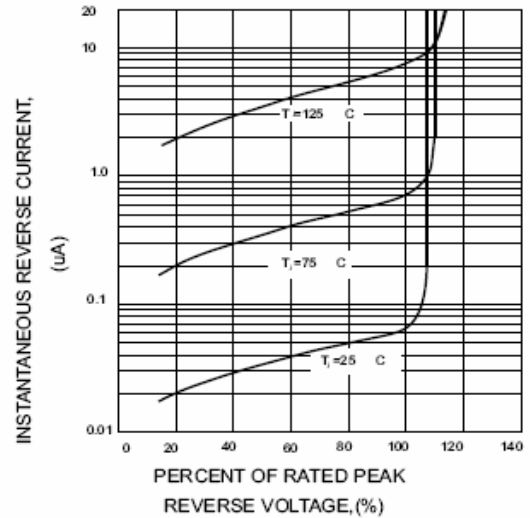
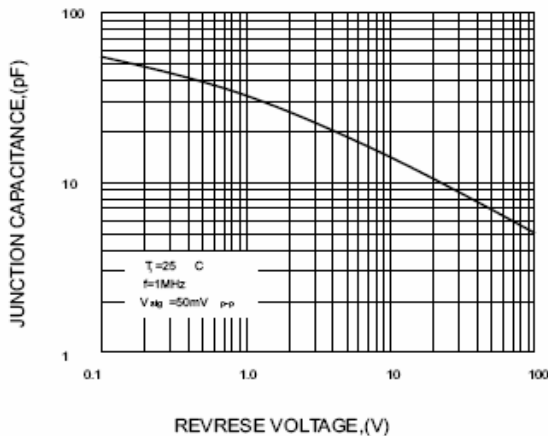
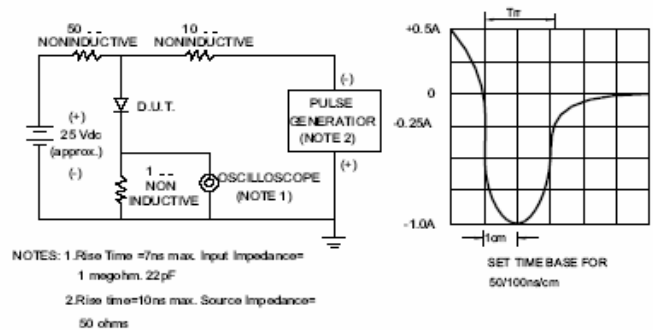
Symbol	Description	FR151G	FR152G	FR153G	FR154G	FR155G	FR156G	FR157G	Unit	Conditions
<b>VF</b>	Max Instantaneous Forward Voltage	1.3							V	1.5A
<b>IR</b>	Max DC Reverse Current at Rated DC Blocking Voltage	5.0							μA	TA=25°C
		200							mA	TA=125°C
<b>TRR</b>	Maximum reverse recovery time	150		250			500	nS	Note 1	
<b>CJ</b>	Typical Junction Capacitance	20							pF	Measured at 1.0MHz / 4.0V

#### Note:

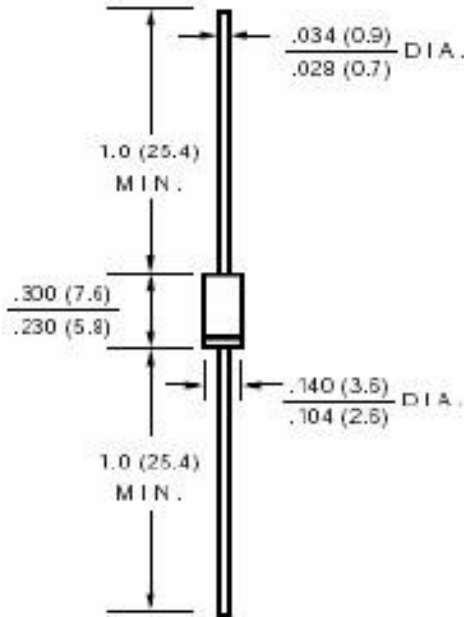
1. Reverse recovery test conditions:  $I_F=0.5A$ ,  $I_R=1.0A$ ,  $I_{RR}=0.25A$
2. Thermal resistance from junction to ambient with 0.375" (9.5mm) lead length, PCB mounted

# FR151G ~ FR157G

## RATINGS AND CHARACTERISTIC CURVES FR151G THRU FR157G

**FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE**

**FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT**

**FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**

**FIG.4-TYPICAL REVERSE CHARACTERISTICS**

**FIG.5-TYPICAL JUNCTION CAPACITANCE**

**FIG.6-TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC**


Dimensions in inches (mm)



DO-15

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