



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

Case:	Transfer molded plastic
Polarity:	Color band denots cathode end
Epoxy:	UL94V-0 rate flame retardant
Lead:	Plated axial lead, solderable per MIL-STD-202E method 208C
Mounting position:	Any
Weight:	0.064 ounce, 1.81 gram

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

Symbol	Description	FR801G	FR802G	FR803G	FR804G	FR805G	FR806G	FR807G	Unit	Conditions
VRRM	Max Recurrent Peak Reverse Voltage	50	100	200	400	600	800	1000	V	
VRMS	Max RMS Voltage	35	70	140	280	420	560	700	V	
VDC	Max DC Blocking Voltage	50	100	200	400	600	800	1000	V	
I(AV)	Max Average Forward Rectified Current	8.0							A	TC=75°C
IFSM	Peak Forward Surge Current	200							A	JEDEC method
TJ,TSTG	Operating and Storage Temperature Range	-65 to +175, -65 to +175							°C	
Rθ-JA	Typical Thermal Resistance	3.0							°C /W	Note 2

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

Symbol	Description	FR801G	FR802G	FR803G	FR804G	FR805G	FR806G	FR807G	Unit	Conditions
VF	Max Instantaneous Forward Voltage	1.3							V	8.0A
IR	Max DC Reverse Current at Rated DC Blocking Voltage	10.0							μA	TA=25°C
		500							mA	TA=100°C
TRR	Maximum reverse recovery time	150		250			500	nS	Note 1	
CJ	Typical Junction Capacitance	50							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

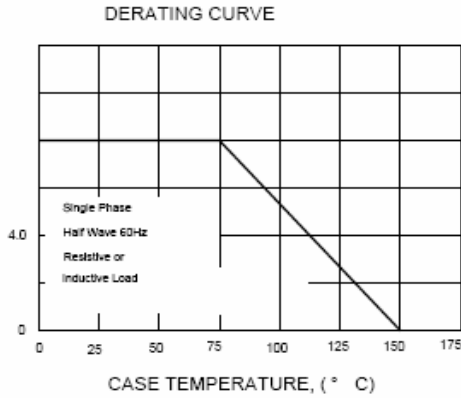
FR801G ~ FR807G
RATINGS AND CHARACTERISTIC CURVES FR801G THRU FR807G


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

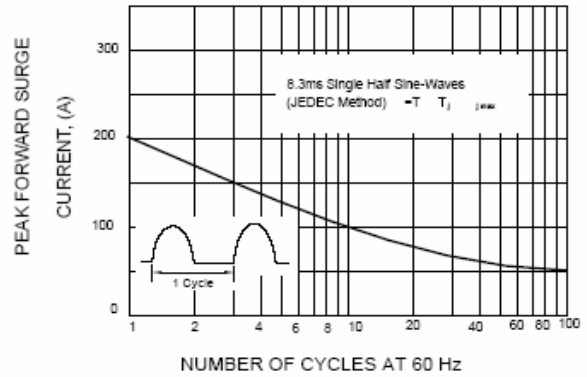


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

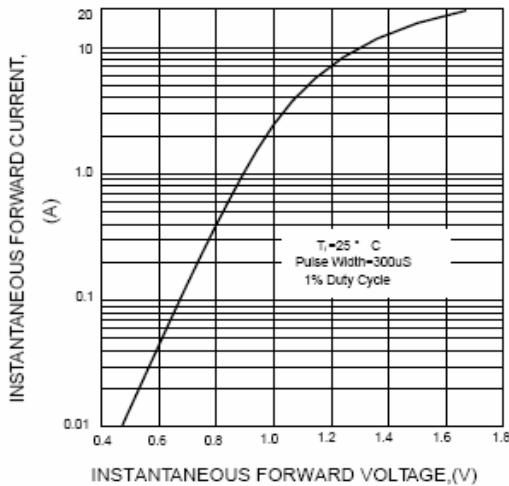


FIG.4-TYPICAL REVERSE CHARACTERISTICS

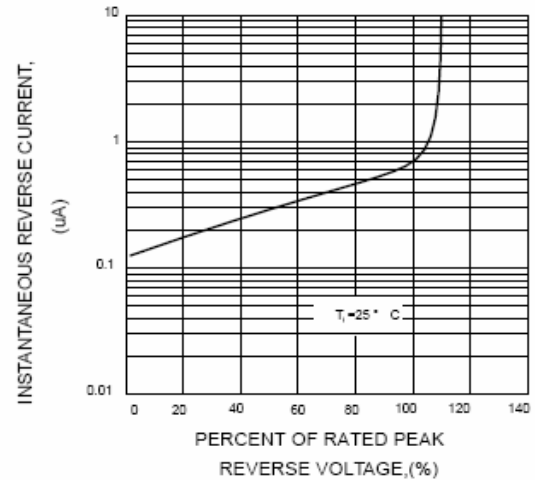


FIG.5-TYPICAL JUNCTION CAPACITANCE

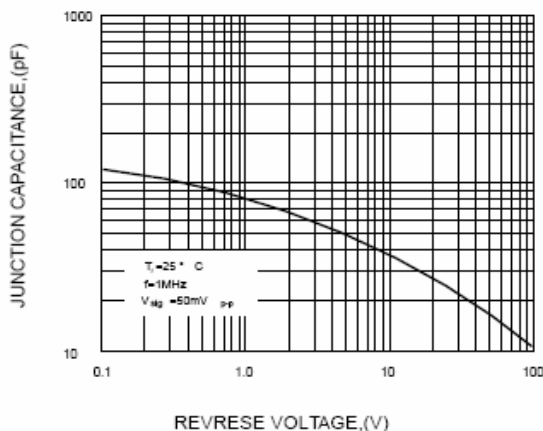
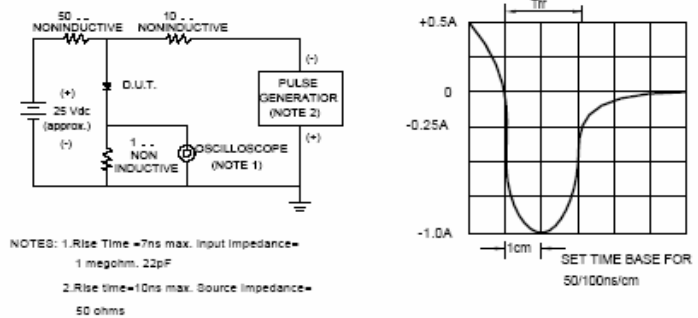
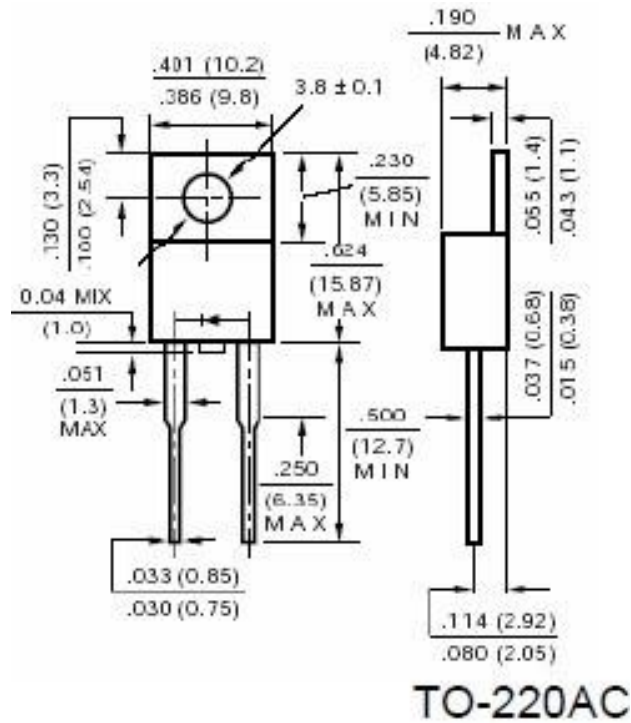


FIG.6-TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



FR801G ~ FR807G

Dimensions in inches (mm)



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