

FR101G - FR107G

1.0 AMP. Glass Passivated Fast Recovery Rectifiers



DO-41



Features

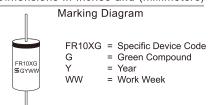
- Glass passivated chip junction.
- High efficiency, Low VF
- High current capability
- High reliability
- High surge current capability
- Low power loss
- Green compound with suffix "G" on packing code & prefix "G" on datecode.

Mechanical Data

- Cases: Molded plastic
- Epoxy: UL 94V-0 rate flame retardant Lead: Pure tin plated, Lead free., solderable ♦ per MIL-STD-202, Method 208 guaranteed
- Polarity: Color band denotes cathode end
- High temperature soldering guaranteed: 260 °C /10 seconds/.375",(9.5mm) lead lengths at 5 lbs.,(2.3kg) tension
- Weight: 0.34 grams

.107 (2.7) .080 (2.0) 1.0 (25.4) MIN DIA. MIN. 034 (.86)

Dimensions in inches and (millimeters)



Maximum Ratings and Electrical Characteristics

Rating 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%

Type Number	Symbol	FR 101G	FR 102G	FR 103G	FR 104G	FR 105G	FR 106G	FR 107G	Units
Maximum Recurrent Peak Reverse Voltage	VRRM	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	VRMS	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	VDC	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current .375"(9.5mm) Lead Length $@T_A = 75$ °C	I F(AV)	1.0							А
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I FSM	30							А
Maximum Instantaneous Forward Voltage @ 1.0A	VF	1.3							V
$\label{eq:maximum} \begin{tabular}{lll} Maximum DC Reverse Current at & @ T_A=$25 °C \\ Rated DC Blocking Voltage (Note 1) @ T_A=$125 °C \\ \end{tabular}$	I R	5.0 100							uA uA
Maximum Reverse Recovery Time (Note 4)	Trr	150 250 500				nS			
Typical Junction Capacitance (Note 2)	Cj	10							pF
Typical Thermal Resistance (Note 3)	RθJA	70							°C/W
Operating Temperature Range	Тл	-65 to +150							°C
Storage Temperature Range	Тѕтс	-65 to +150							°C

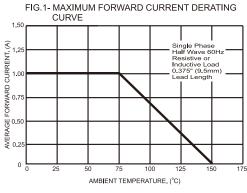
Notes: 1. Pulse Test with PW=300 usec,1% Duty Cycle

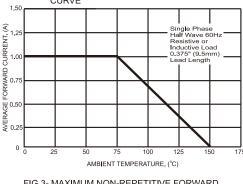
- 2. Measured at 1 MHz and Applied Reverse Voltage of 4.0 Volts D.C.
- 3. Mount on Cu-Pad Size 5mm x 5mm on P.C.B.
- 4. Reverse Recovery Test Conditions: I_F=0.5A, I_R=1.0A, I_{RR}=0.25A

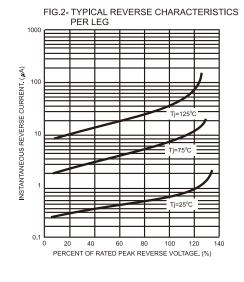
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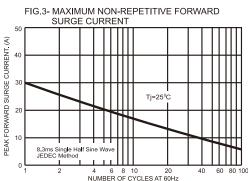


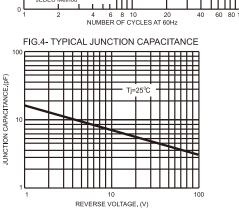
RATINGS AND CHARACTERISTIC CURVES (FR101G THRU FR107G)











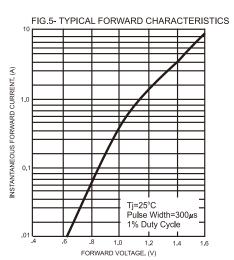
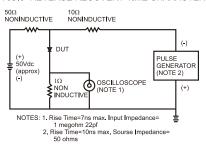
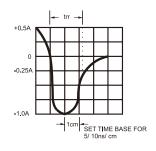


FIG.6- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM





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