



FR101G THRU FR107G

1.0AMP Fast Recovery Rectifier

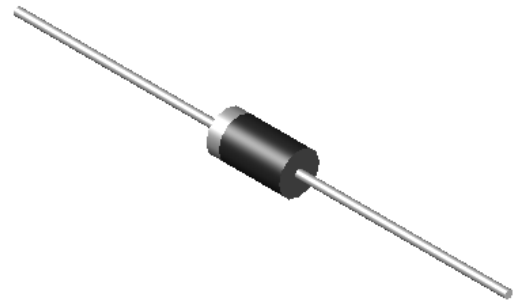
1. Features

- Glass passivated chip junction
- Low leakage current
- Low forward voltage drop.
- High current capability.
- High reliability.
- Fast switching for fast recovery
- Meets MSL level 1, per J-STD-020.

2. Mechanical Data

- Case:Molded Plastic,DO-41 .
- Epoxy:UL 94V-0 rate flame retardant.
- Terminals:Plated Leads Solderable per MIL-STD-750,Method-2026.
- Marking:marked on body.

DO-41



Cathode —|<— Anode

3. Maximum Ratings and Electrical Characteristics

Electrical Characteristics Rating at 25°C ambient temperature unless otherwise specified.

PARAMETER	SYMBOL	FR101G	FR102G	FR103G	FR104G	FR105G	FR106G	FR107G	UNIT
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V _{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V _{DC}	50	100	200	400	600	800	1000	V
Average Rectified Output Current @T _L =90°C	I _{F(AV)}	1.0							A
Peak Forward Surge Current 8.3ms @T _j =25°C	I _{FSM}	35							A
Single half sine-wave superimposed @T _j =125°C on rated load (JEDEC Method)		28							
I ² t Rating for Fusing (t < 8.3ms)	I ² t	5.08							A ² S
Maximum Instantaneous Forward Voltage @I _F =1A	V _{FM}	1.3							V
Maximum DC reverse current @T _j =25°C	I _R	5.0							uA
at rated DC blocking voltage @T _j =125°C		100							
Maximum Reverse Recovery Time (Note 1)	T _{RR}	150				250	500		ns
Typical Junction Capacitance (Note 2)	C _j	7							pF
Typical Thermal Resistance	R _{θJA}	65							°C/W
	R _{θJL}	15							
	R _{θJC}	5							
Operating Temperature Range	T _j	-55 to+150							°C
Storage Temperature Range	T _{STG}	-55 to+150							°C

Note:

1. Reverse Recovery Test Conditions: $I_F=0.5A$, $I_R=1.0A$, $IRR=0.25A$.
2. Measured at 1.0 MHz and Applied reverse Voltage of 4.0V D.C



4. Rating And Characteristic Curves

Fig. 1 Forward Current Derating Curve

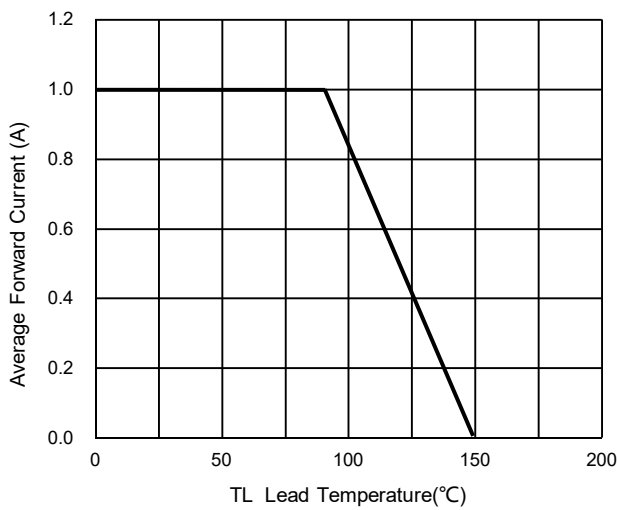


Fig. 2 Typical Forward Characteristics

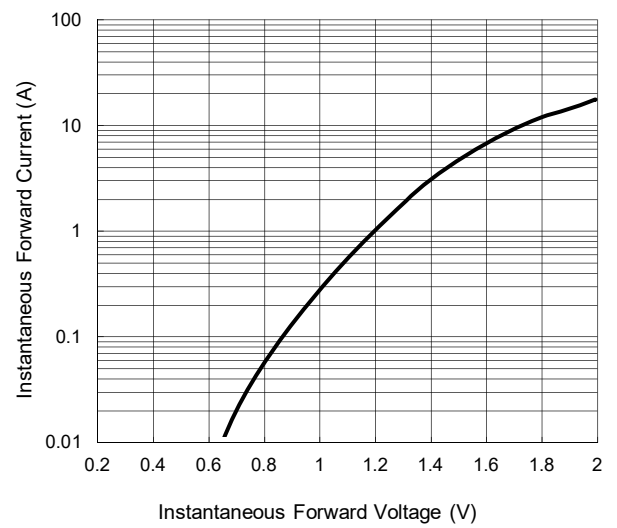


Fig. 3 Forward Surge Current Capability

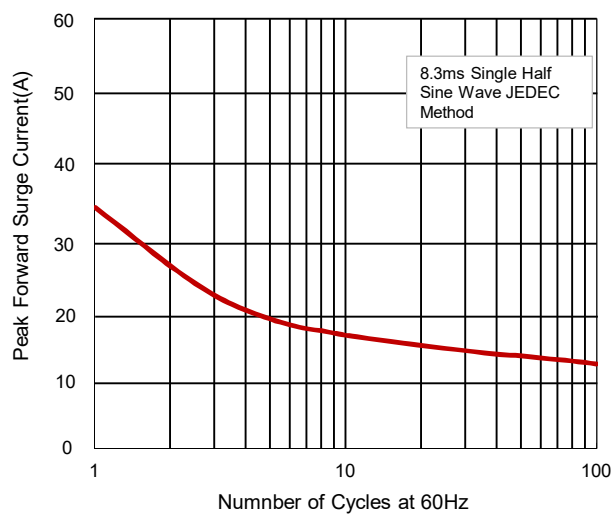
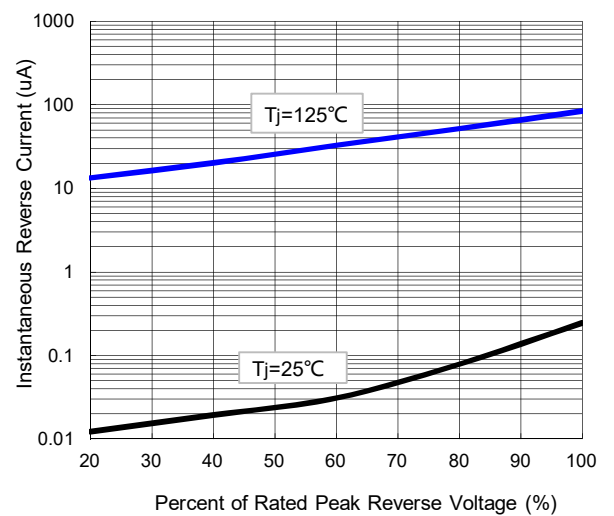


Fig.4 Typical Reverse Characteristics

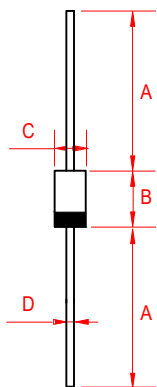




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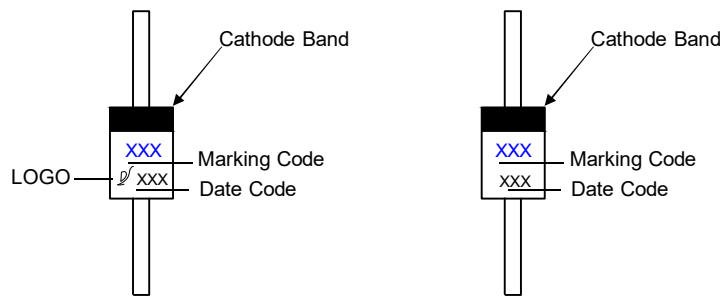
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5. Dimensions



Dimensions	Inches		Millimeters	
	Min	Max	Min	Max
A	1.0	/	25.4	/
B	/	0.205	/	5.2
C	0.079	0.118	2.0	3.0
D	0.024	0.031	0.6	0.8

6. Part Marking System



7. Package Information

Package	Packing
DO-41	5000 / Tape & Reel



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