



1N5391G - 1N5399G

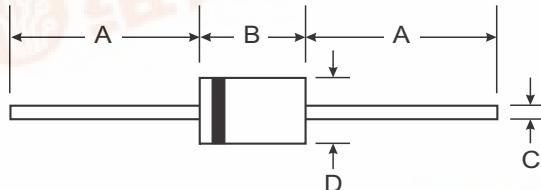
1.5A GLASS PASSIVATED RECTIFIER

Features

- Glass Passivated Die Construction
- High Current Capability and Low Forward Voltage Drop
- Surge Overload Rating to 50A Peak
- Low Reverse Leakage Current
- Lead Free Finish, RoHS Compliant (Note 3)

Mechanical Data

- Case: DO-15
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020C
- Terminals: Finish – Tin. Solderable per MIL-STD-202, Method 208 (E3)
- Polarity: Cathode Band
- Marking: Type Number
- Weight: 0.4 grams (approximate)



DO-15		
Dim	Min	Max
A	25.40	—
B	5.50	7.62
C	0.686	0.889
D	2.60	3.6
All Dimensions in mm		

Maximum Ratings and Electrical Characteristics

@ $T_A = 25^\circ\text{C}$ unless otherwise specified

Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

Characteristic	Symbol	1N53 91G	1N53 92G	1N53 93G	1N53 95G	1N53 97G	1N53 98G	1N53 99G	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	50	100	200	400	600	800	1000	V
RMS Reverse Voltage	$V_{R(RMS)}$	35	70	140	280	420	560	700	V
Average Rectified Output Current (Note 1) @ $T_A = 55^\circ\text{C}$	I_o	1.5						A	
Non-Repetitive Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	50						A	
Forward Voltage @ $I_F = 1.5\text{A}$	V_{FM}	1.1						V	
Peak Reverse Current @ $T_A = 25^\circ\text{C}$ at Rated DC Blocking Voltage @ $T_A = 100^\circ\text{C}$	I_{RM}	5.0 200						μA	
I^2t Rating for Fusing ($t < 8.3\text{ms}$)	I^2t	10.4						A^2s	
Typical Total Capacitance (Note 2)	C_T	15						pF	
Typical Thermal Resistance Junction to Ambient	R_{0JA}	80						$^\circ\text{C/W}$	
Operating and Storage Temperature Range	T_j, T_{STG}	-65 to +175						$^\circ\text{C}$	

Notes: 1. Valid provided that leads are kept at ambient temperature at a distance of 9.5mm from the case.

2. Measured at 1.0 MHz and applied reverse voltage of 4.0V DC.

3. RoHS revision 13.2.2003. Glass and High Temperature Solder Exemptions Applied, see EU Directive Annex Notes 5 and 7.

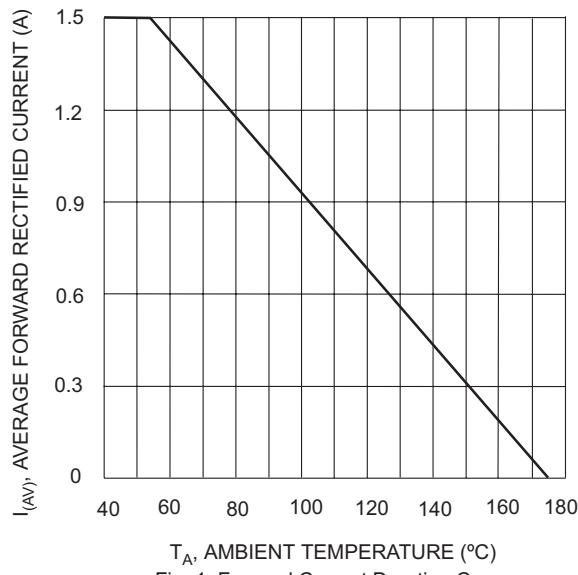


Fig. 1 Forward Current Derating Curve

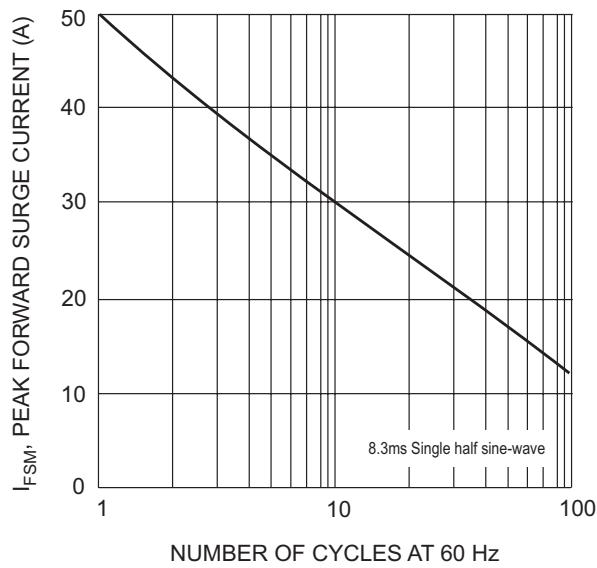
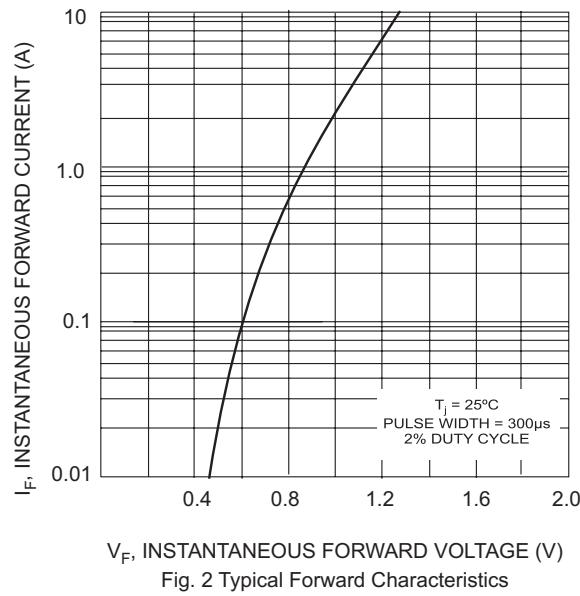


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

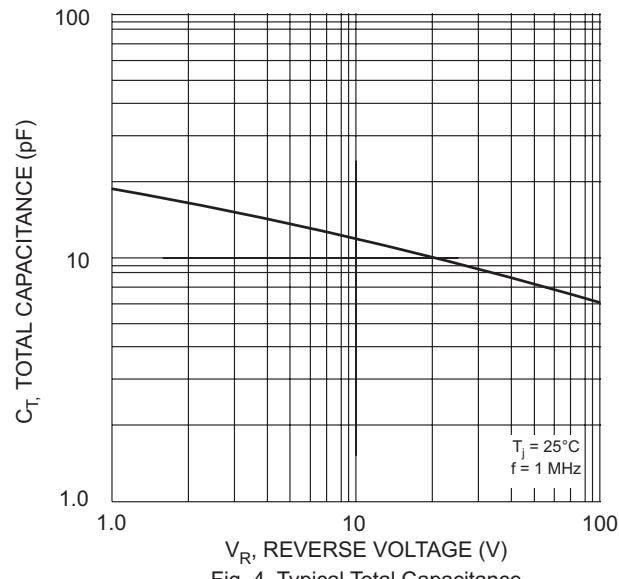


Fig. 4 Typical Total Capacitance

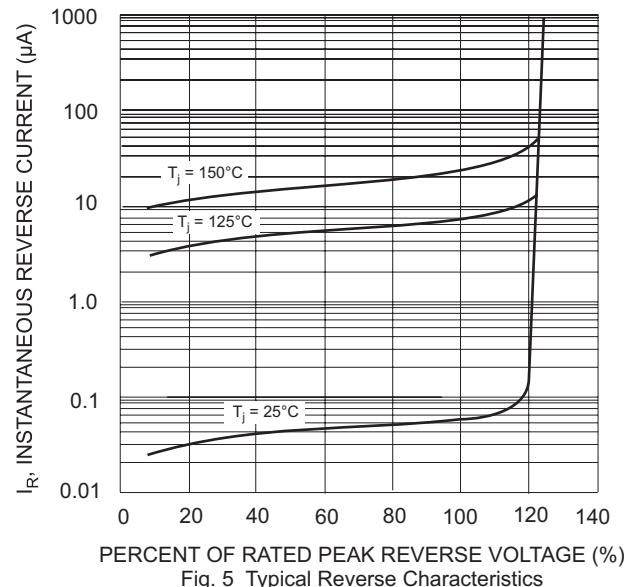


Fig. 5 Typical Reverse Characteristics



Ordering Information (Note 4)

Device	Packaging	Shipping
1N5391G-T	DO-15	4K/Tape & Reel, 13-inch
1N5392G-T	DO-15	4K/Tape & Reel, 13-inch
1N5393G-T	DO-15	4K/Tape & Reel, 13-inch
1N5395G-T	DO-15	4K/Tape & Reel, 13-inch
1N5397G-T	DO-15	4K/Tape & Reel, 13-inch
1N5398G-T	DO-15	4K/Tape & Reel, 13-inch
1N5399G-T	DO-15	4K/Tape & Reel, 13-inch

Notes: 4. For packaging details, visit our website at <http://www.diodes.com/datasheets/ap02008.pdf>.

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