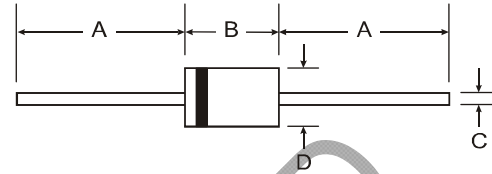


Features

- 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	V_{RRM}								
Working Peak Reverse Voltage	V_{RWM}	50	100	200	400	600	800	1000	V
DC Blocking Voltage	V_R								
RMS Reverse Voltage	$V_{R(RMS)}$	35	70	140	280	420	560	700	V
Average Rectified Output Current (Note 1)	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	V_{FM}	@ $I_F = 1.5A$ 1.1							V
Peak Reverse Current	I_{RM}	@ $T_A = 25^\circ\text{C}$ 5.0							μA
at Rated DC Blocking Voltage		@ $T_A = 100^\circ\text{C}$ 200							
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	$R_{\theta JA}$	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*.

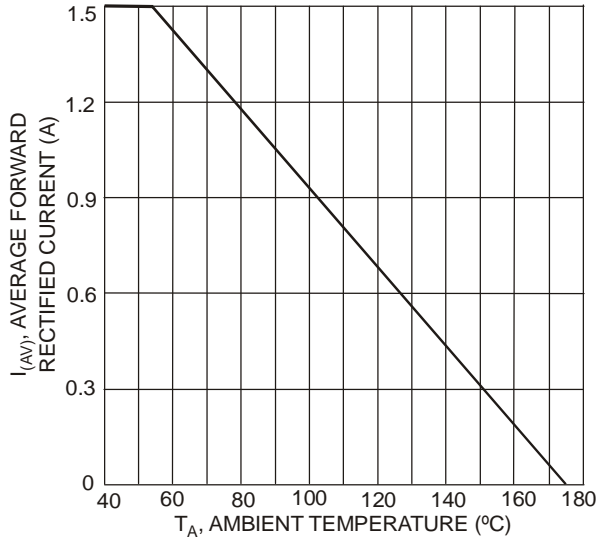


Fig. 1 Forward Current Derating Curve

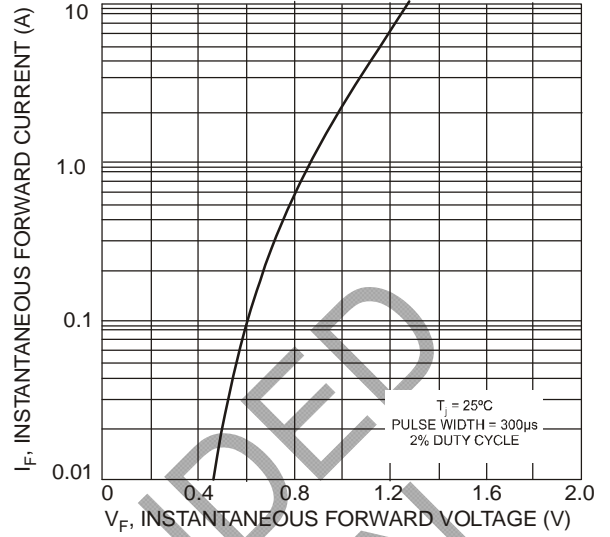


Fig. 2 Typical Forward Characteristics

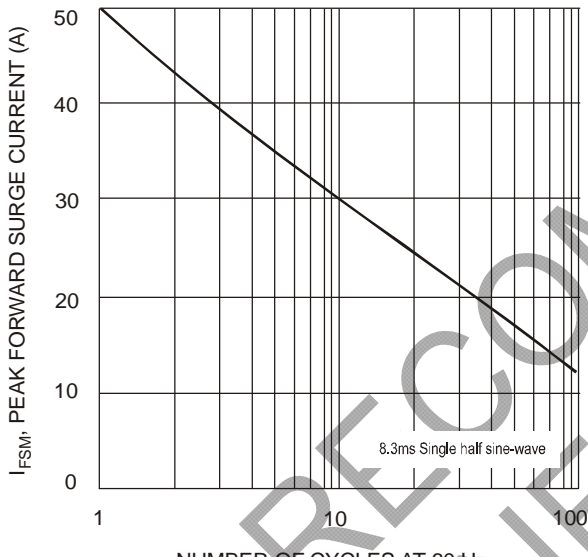


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

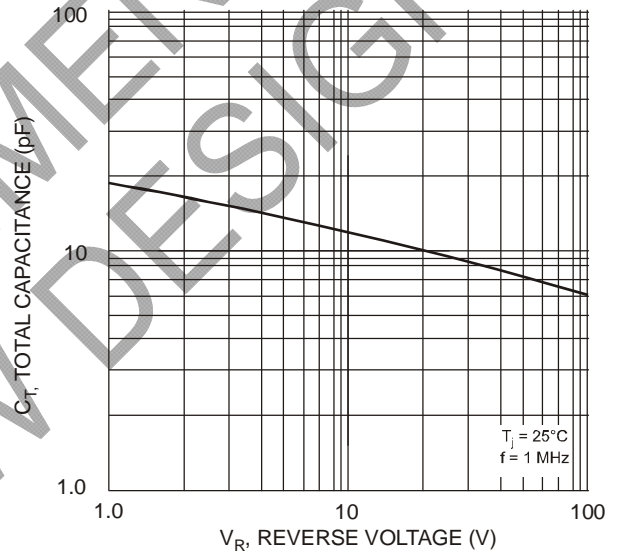


Fig. 4 Typical Total Capacitance

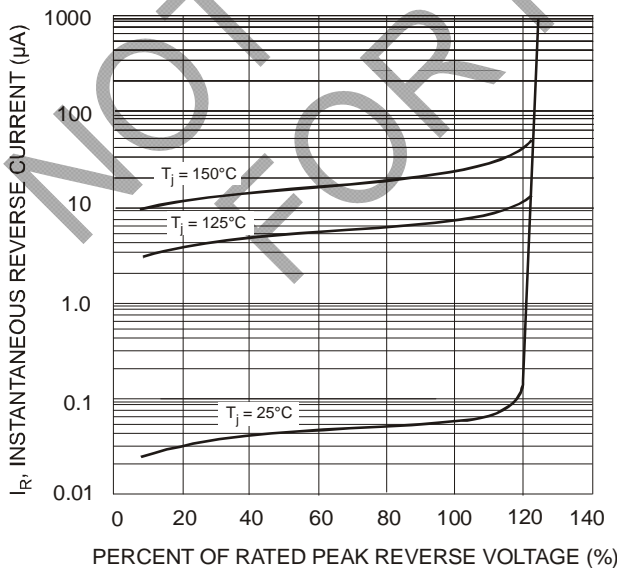


Fig. 5 Typical Reverse Characteristics

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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