

1N4937G-T Datasheet



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DiGi Electronics Part Number	1N4937G-T-DG
Manufacturer	Diodes Incorporated
Manufacturer Product Number	1N4937G-T
Description	DIODE GEN PURP 600V 1A DO41
Detailed Description	Diode 600 V 1A Through Hole DO-41

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Purchase and inquiry

Manufacturer Product Number:

1N4937G-T

Series:

-

Technology:

Standard

Current - Average Rectified (Io):

1A

Speed:

Fast Recovery =< 500ns, > 200mA (Io)

Current - Reverse Leakage @ Vr:

5 μ A @ 600 V

Mounting Type:

Through Hole

Supplier Device Package:

DO-41

Base Product Number:

1N4937

Manufacturer:

Diodes Incorporated

Product Status:

Active

Voltage - DC Reverse (Vr) (Max):

600 V

Voltage - Forward (Vf) (Max) @ If:

1.2 V @ 1 A

Reverse Recovery Time (trr):

200 ns

Capacitance @ Vr, F:

-

Package / Case:

DO-204AL, DO-41, Axial

Operating Temperature - Junction:

-65°C ~ 150°C

Environmental & Export classification

RoHS Status:

ROHS3 Compliant

REACH Status:

REACH Unaffected

HTSUS:

8541.10.0080

Moisture Sensitivity Level (MSL):

1 (Unlimited)

ECCN:

EAR99

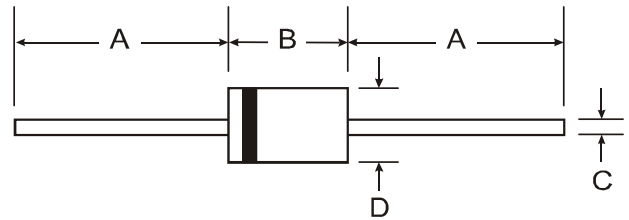


1N4933G - 1N4937G

1.0A FAST RECOVERY GLASS PASSIVATED RECTIFIER

Features

- Glass Passivated Die Construction
- Diffused Junction
- Fast Switching for High Efficiency
- High Current Capability and Low Forward Voltage Drop
- Surge Overload Rating to 30A Peak
- **Lead Free Finish, RoHS Compliant (Note 4)**



Mechanical Data

- Case: DO-41
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020D
- Terminals: Finish - Bright Tin. Plated Leads Solderable per MIL-STD-202, Method 208 **(e3)**
- Polarity: Cathode Band
- Ordering Information: See Page 3
- Marking: Type Number
- Weight: 0.35 grams (approximate)

Dim	DO-41	
	Min	Max
A	25.40	—
B	4.06	5.21
C	0.71	0.864
D	2.00	2.72
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	1N4933G	1N4934G	1N4935G	1N4936G	1N4937G	Unit
Peak Repetitive Reverse Voltage	V_{RRM}						V
Working Peak Reverse Voltage	V_{RWM}	50	100	200	400	600	V
DC Blocking Voltage	V_R						V
RMS Reverse Voltage	$V_{R(RMS)}$	35	70	140	280	420	V
Average Rectified Output Current (Note 1) @ $T_A = 75^\circ\text{C}$	I_O	1.0					A
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load	I_{FSM}	30					A
Forward Voltage @ $I_F = 1.0\text{A}$	V_{FM}	1.2					V
Peak Reverse Current @ $T_A = 25^\circ\text{C}$ at Rated DC Blocking Voltage @ $T_A = 100^\circ\text{C}$	I_{RM}	5.0 100					μA
Reverse Recovery Time (Note 3)	t_{rr}	200					ns
Typical Junction Capacitance (Note 2)	C_j	15					pF
Typical Thermal Resistance Junction to Ambient	$R_{\theta JA}$	100					K/W
Operating and Storage Temperature Range	T_J, T_{STG}	-65 to +150					$^\circ\text{C}$

- Notes:
1. Valid provided that leads are maintained at ambient temperature at a distance of 9.5mm from the case.
 2. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
 3. Measured with $I_F = 0.5\text{A}$, $I_R = 1.0\text{A}$, $I_{rr} = 0.25\text{A}$.
 4. EU Directive 2002/95/EC (RoHS). All applicable RoHS exemptions applied, see EU Directive 2002/95/EC Annex Notes.

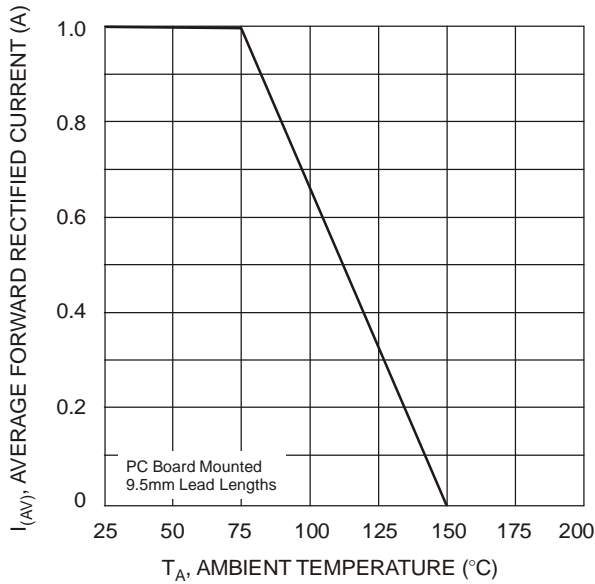


Fig. 1 Forward Current Derating Curves

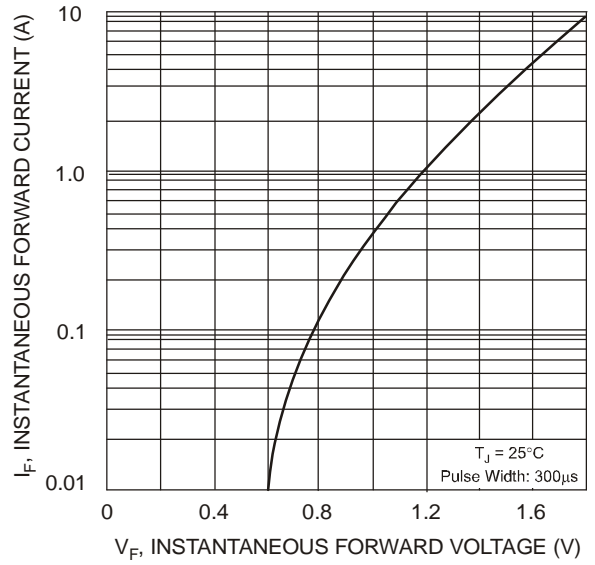


Fig. 2 Typical Forward Characteristics

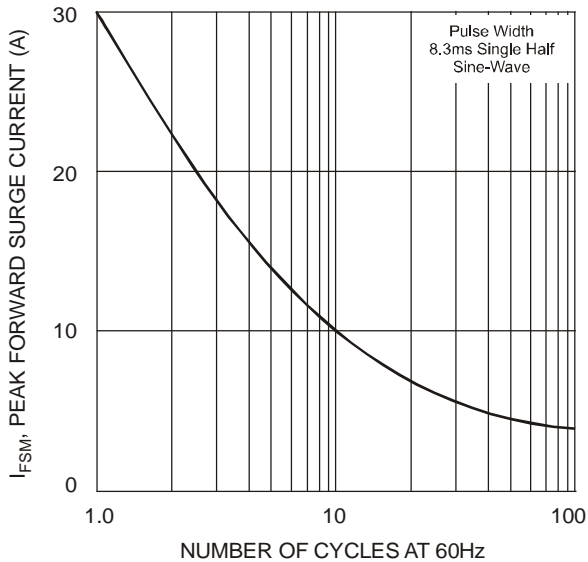


Fig. 3 Max Non-Repetitive Peak Forward Surge Current

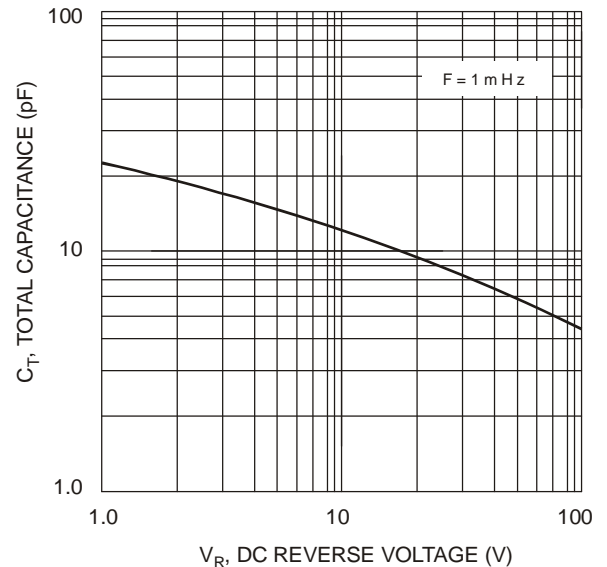
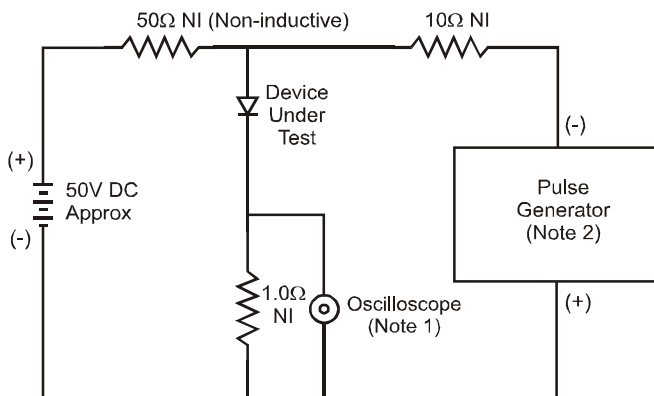
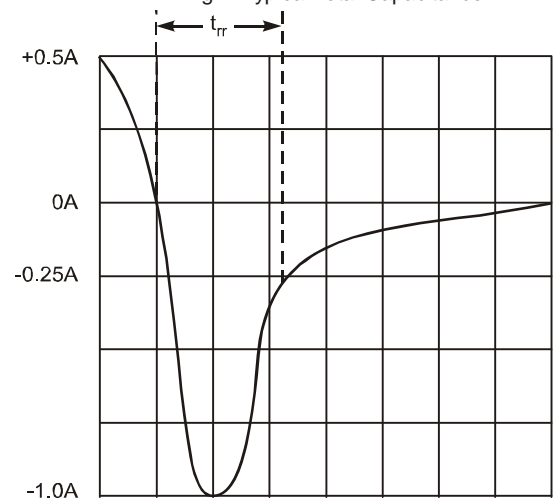


Fig. 4 Typical Total Capacitance



- Notes:
1. Rise Time = 7.0ns max. Input Impedance = 1.0MΩ, 22pF.
 2. Rise Time = 10ns max. Input Impedance = 50Ω.



Set time base for 50/100 ns/cm

Fig. 5 Reverse Recovery Time Characteristic and Test Circuit



Ordering Information (Note 5)

Device	Packaging	Shipping
1N4933G-T	DO-41	5K/Tape & Reel, 13-inch
1N4934G-T	DO-41	5K/Tape & Reel, 13-inch
1N4935G-T	DO-41	5K/Tape & Reel, 13-inch
1N4936G-T	DO-41	5K/Tape & Reel, 13-inch
1N4937G-T	DO-41	5K/Tape & Reel, 13-inch

Notes: 5. For packaging details, visit our website at <http://www.diodes.com/datasheets/ap02008.pdf>.

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