



### Features

- ✧ 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/10s / .375", (9.5mm) lead lengths at 5 lbs, (2.3kg) tension
- ✧ Weight: 0.34 grams

### 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	1N 4933	1N 4934	1N 4935	1N 4936	1N 4937	Units
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	V
Maximum RMS Voltage	$V_{RMS}$	35	70	140	280	420	V
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	V
Maximum Average Forward Rectified Current .375" (9.5mm) Lead Length @ $T_A=50^\circ\text{C}$	$I_{F(AV)}$	1					A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	$I_{FSM}$	30					A
Maximum Instantaneous Forward Voltage (Note 1) @ 1 A	$V_F$	1.2					V
Maximum DC Reverse Current at Rated DC Blocking Voltage	$I_R$	5 150					$\mu\text{A}$
Maximum Reverse Recovery Time (Note 2)	$T_{rr}$	200.0					nS
Typical Junction Capacitance (Note 3)	$C_j$	10					pF
Typical Thermal Resistance (Note 4)	$R_{\theta JA}$	65					$^\circ\text{C/W}$
Operating Temperature Range	$T_J$	- 65 to + 150					$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	- 65 to + 150					$^\circ\text{C}$

Note1: Pulse Test with PW=300 usec, 1% Duty Cycle

Note2: Reverse Recovery Test Conditions:  $I_F=1.0\text{A}$ ,  $V_R=30\text{V}$ ,  $di/dt=50\text{A}/\mu\text{s}$ ,  $I_{rr}=10\%$  IRM for Measurement of  $t_{rr}$

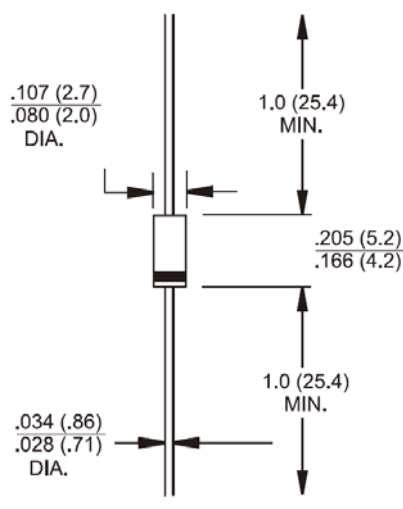
Note3: Measured at 1 MHz and Applied Reverse Voltage of 4.0V D.C.

Note4: Mount on Cu-Pad Size 5mm × 5mm on P.C.B.

## 1N4933 - 1N4937

### 1.0 AMP. Fast Recovery Rectifiers

#### DO-41



#### Dimensions in inches and (millimeters)

#### Marking Diagram



- 1N439X = Specific Device Code
- G = Green Compound
- Y = Year
- WW = Work Week

## RATINGS AND CHARACTERISTIC CURVES (1N4933 THRU 1N4937)

FIG. 1- MAXIMUM FORWARD CURRENT DERATING CURVE

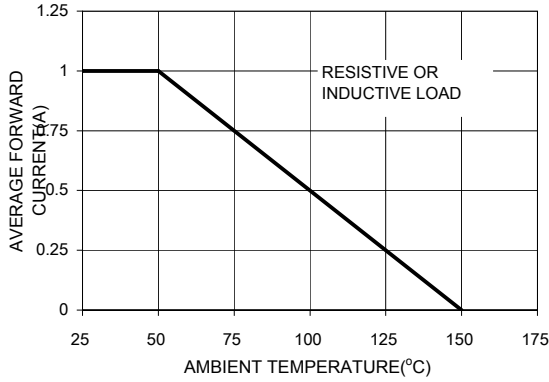


FIG. 2- TYPICAL REVERSE CHARACTERISTICS

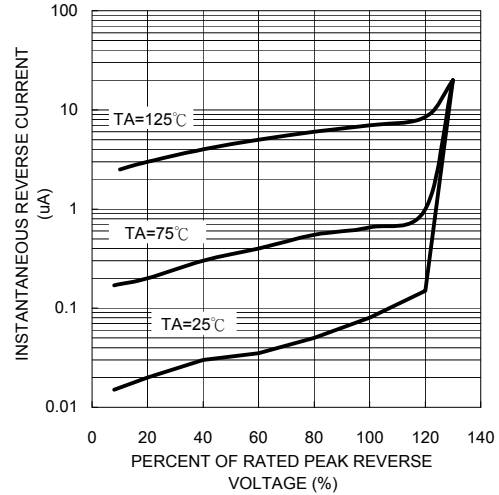


FIG. 3- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

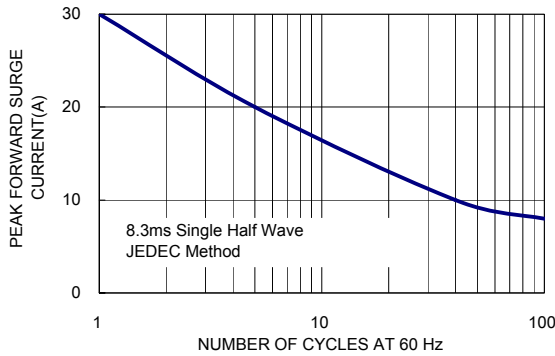


FIG. 5- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

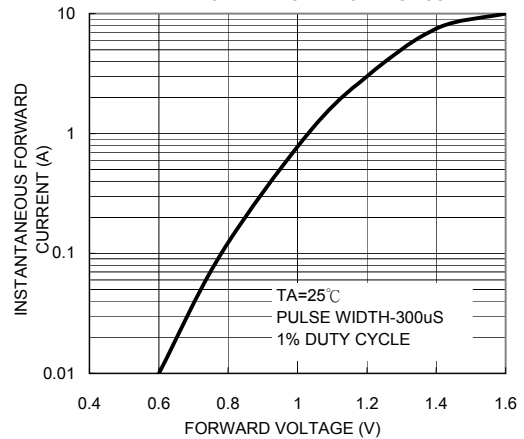


FIG. 4- TYPICAL JUNCTION CAPACITANCE

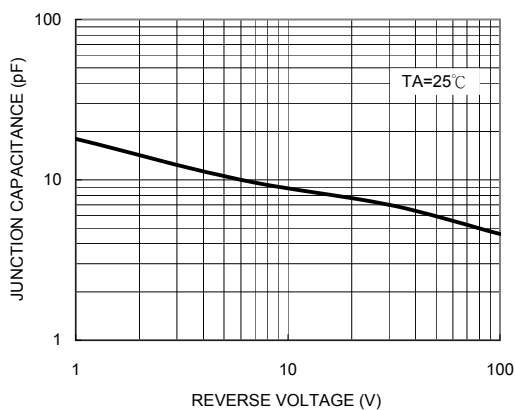


FIG. 6- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

