

GLASS PASSIVATED JUNCTIONS

VOLTAGE RANGE: 50 --- 600 V
CURRENT: 1.0 A

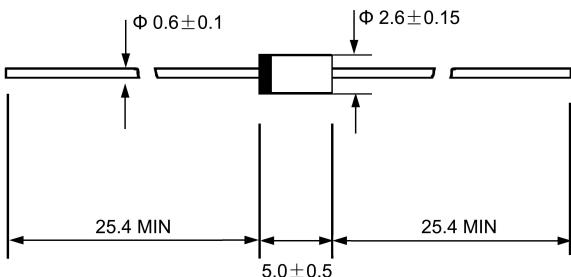
FEATURES

- ◇ Low cost
- ◇ Glass passivated junction
- ◇ Low leakage
- ◇ Low forward voltage drop
- ◇ High current capability
- ◇ Easily cleaned with Freon,Alcohol,Isopropanol and similar solvents
- ◇ The plastic material carries U/L recognition 94V-0

MECHANICAL DATA

- ◇ Case: JEDEC A-405, molded plastic
- ◇ Terminals: Axial lead, solderable per MIL-STD-202, Method 208
- ◇ Polarity: Color band denotes cathode
- ◇ Weight: 0.008 ounces, 0.23 grams
- ◇ Mounting position: Any

A - 405



Dimensions in millimeters

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

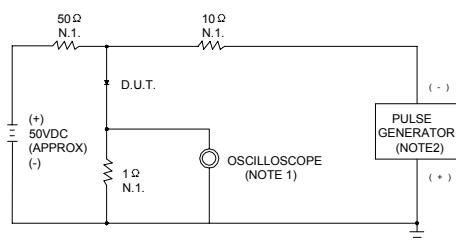
Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate by 20%.

| | | 1N 4933GL | 1N 4934GL | 1N 4935GL | 1N 4936GL | 1N 4937GL | 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 9.5mm lead length, $\text{@} T_A = 75^\circ\text{C}$ | $I_{F(AV)}$ | | | | 1.0 | | A |
| Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load $\text{@} T_J = 125^\circ\text{C}$ | I_{FSM} | | | | 30.0 | | A |
| Maximum instantaneous forward voltage $\text{@} 1.0 \text{ A}$ | V_F | | | 1.3 | | | V |
| Maximum reverse current $\text{@} T_A = 25^\circ\text{C}$ at rated DC blocking voltage $\text{@} T_A = 100^\circ\text{C}$ | I_R | | | 5.0 | | | μA |
| Maximum reverse capacitance (Note1) | t_{rr} | | | 200 | | | ns |
| Typical junction capacitance (Note2) | C_J | | | 12.0 | | | pF |
| Typical thermal resistance (Note3) | $R_{\theta JA}$ | | | 22.0 | | | $^\circ\text{C/W}$ |
| Operating junction temperature range | T_J | | | - 55---- +175 | | | $^\circ\text{C}$ |
| Storage temperature range | T_{STG} | | | - 55---- + 175 | | | $^\circ\text{C}$ |

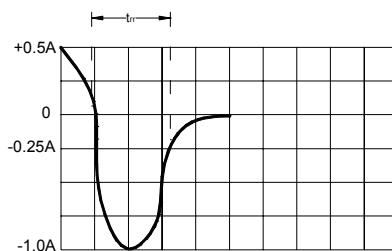
NOTE: 1. Measured with $I_F = 0.5\text{A}$ $I_R = 1\text{A}$ $I_{rr} = 0.25\text{A}$.

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

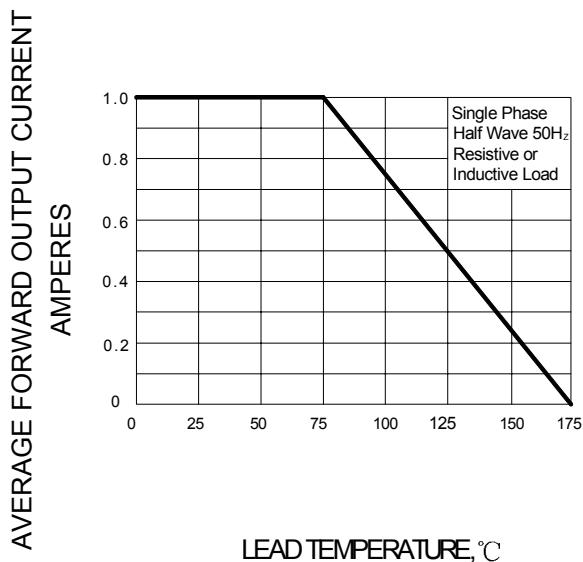
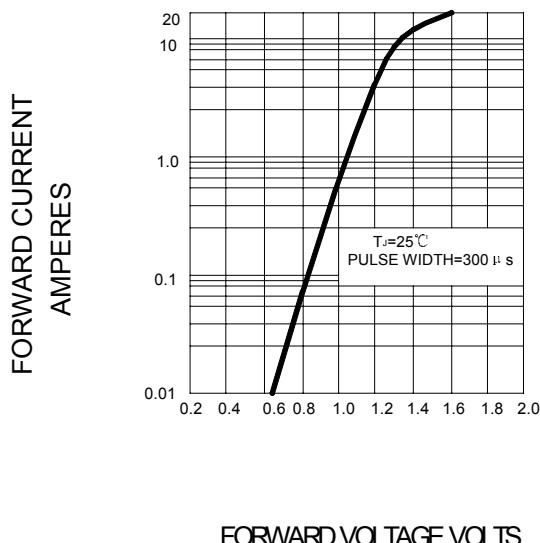
3. Thermal resistance from junction to ambient.

FIG.1 – TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC

NOTES:
 1. RISE TIME = 7ns MAX INPUT IMPEDANCE = 1MΩ 22PF
 2. RISE TIME = 10ns MAX SOURCE IMPEDANCE = 50Ω



SET TIME BASE FOR 50/100 ns / cm

FIG.2 – FORWARD CURRENT DERATING CURVE**FIG.4-TYPICAL FORWARD CHARACTERISTIC****FIG.3 – PEAK FORWARD SURGE CURRENT****FIG.4-TYPICAL JUNCTION CAPACITANCE**