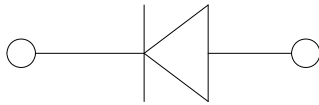


## Fast Recovery Rectifier



### Features

- High efficiency
- High current capability
- High reliability
- High surge current capability
- Low power loss
- Glass passivated chip junction
- Solder dip 275 °C max. 7 s, per JESD 22-B106

### Mechanical Data

- **Package:** DO-204AL(DO-41)  
Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** Color band denotes cathode end

### ■ Maximum Ratings (T<sub>a</sub>=25°C Unless otherwise specified)

| PARAMETER   | SYMBOL             | UNIT | 1N4933    | 1N4934 | 1N4935 | 1N4936 | 1N4937 |
|---|--------------------|------|-----------|--------|--------|--------|--------|
| Device marking code   |                    |      | 1N4933    | 1N4934 | 1N4935 | 1N4936 | 1N4937 |
| Repetitive Peak Reverse Voltage   | V <sub>RRM</sub>   | V    | 50        | 100    | 200    | 400    | 600    |
| Average Forward Current<br>@60Hz sine wave, Resistance load, T <sub>a</sub> =75°C             | I <sub>F(AV)</sub> | A    | 1.0       |        |        |        |        |
| Forward Surge Current (Non-repetitive)<br>@60Hz Half-sine wave, 1 cycle, T <sub>a</sub> =25°C | I <sub>FSM</sub>   | A    | 30        |        |        |        |        |
| Storage Temperature   | T <sub>stg</sub>   | °C   | -55 ~+150 |        |        |        |        |
| Junction Temperature  | T <sub>j</sub>     | °C   | -55~+150  |        |        |        |        |

### ■ Electrical Characteristics (T<sub>a</sub>=25°C Unless otherwise specified)

| PARAMETER   | SYMBOL            | UNIT | TEST CONDITIONS   | 1N4933 | 1N4934 | 1N4935 | 1N4936 | 1N4937 |
|---|-------------------|------|---|--------|--------|--------|--------|--------|
| Maximum instantaneous forward voltage drop per diode              | V <sub>FM</sub>   | V    | I <sub>FM</sub> =1.0A   | 1.2    |        |        |        |        |
| Maximum DC reverse current at rated DC blocking voltage per diode | I <sub>RFM1</sub> | μA   | T <sub>a</sub> =25°C  | 2.5    |        |        |        |        |
|   | I <sub>RFM2</sub> |      | T <sub>a</sub> =100°C   | 100    |        |        |        |        |
| Reverse Recovery time   | t <sub>rr</sub>   | ns   | I <sub>F</sub> =0.5A I <sub>R</sub> =1A<br>I <sub>RR</sub> =0.25A | 150    |        |        |        |        |
| Typical junction capacitance                                      | C <sub>j</sub>    | pF   | Measured at 1MHZ and Applied Reverse Voltage of 4.0 V.D.C.        | 10     |        |        |        |        |

### ■ Thermal Characteristics (T<sub>a</sub>=25°C Unless otherwise specified)

| PARAMETER                   | SYMBOL           | UNIT | 1N4933 | 1N4934 | 1N4935 | 1N4936 | 1N4937 |
|-----------------------------|------------------|------|--------|--------|--------|--------|--------|
| Thermal Resistance(Typical) | R <sub>θJA</sub> | °C/W | 60     |        |        |        |        |



# 1N4933 THRU 1N4937

## Ordering Information (Example)

| PREFERRED P/N | PACKAGE CODE | UNIT WEIGHT(g)   | MINIMUM PACKAGE(pcs) | INNER BOX QUANTITY(pcs) | OUTER CARTON QUANTITY(pcs) | DELIVERY MODE |
|---------------|--------------|------------------|----------------------|-------------------------|----------------------------|---------------|
| 1N4933~1N4937 | D1           | Approximate 0.30 | 5000                 | 5000                    | 50000                      | Tape          |
| 1N4933~1N4937 | C1           | Approximate 0.30 | 1000                 | 1000                    | 50000                      | Bulk          |

## Characteristics (Typical)

FIG.1: I<sub>o</sub>-T<sub>a</sub> Curve

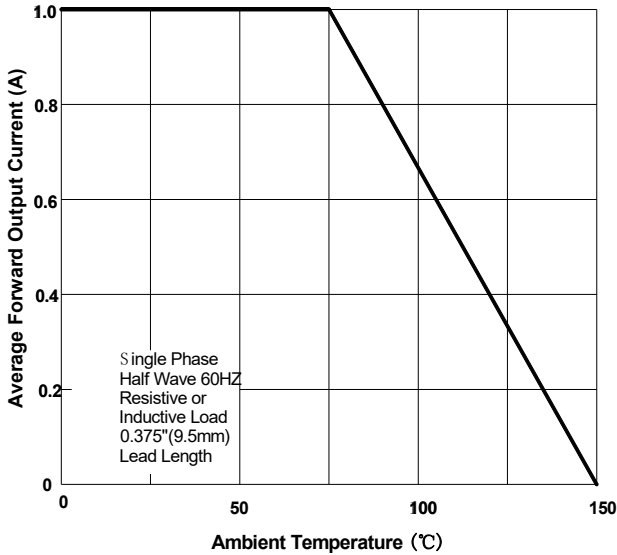


FIG.2: Forward Surge Current Capability

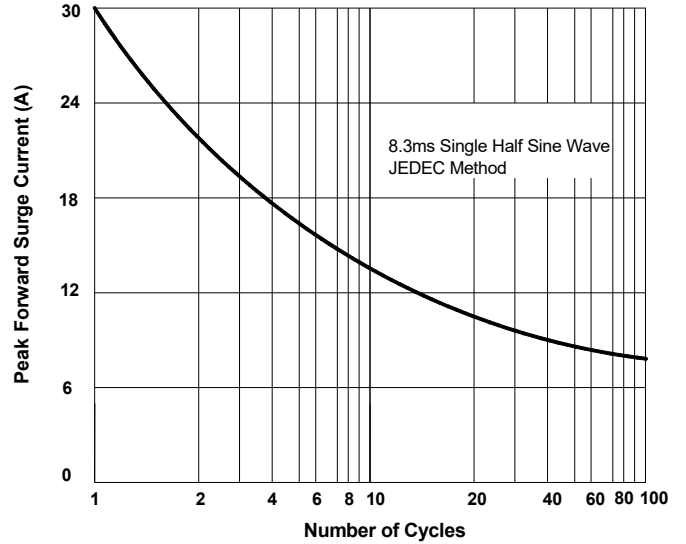


FIG.3: Forward Voltage

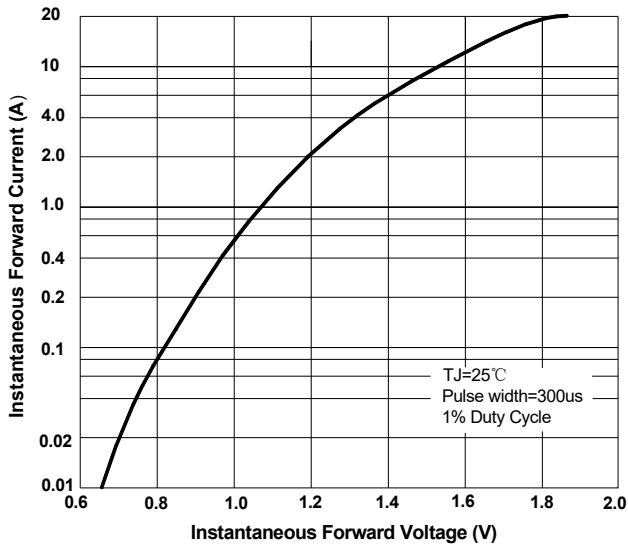
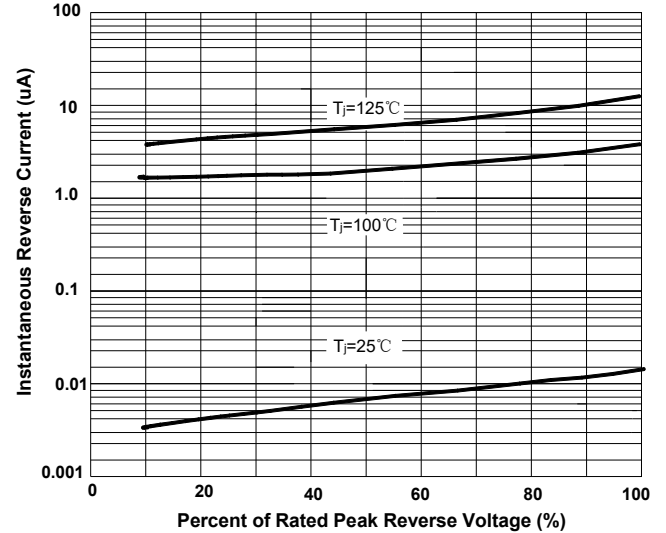


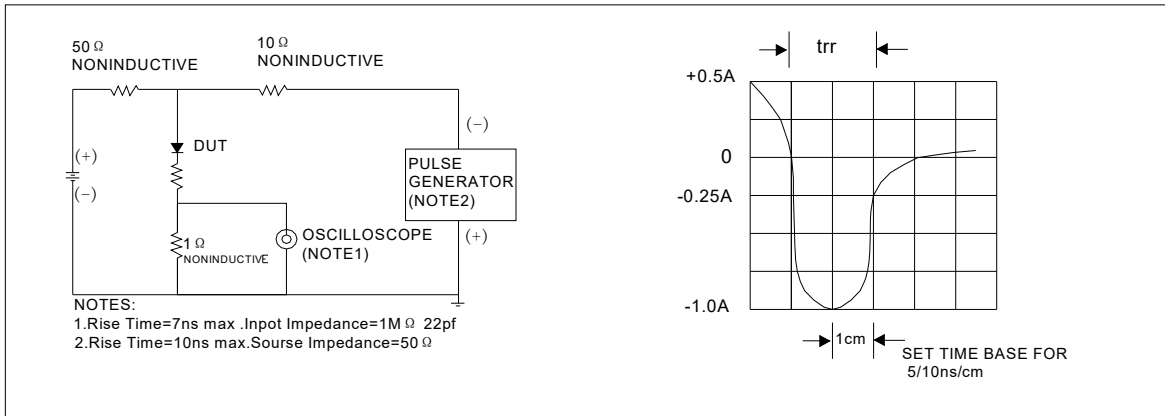
FIG.4: Typical Reverse Characteristics



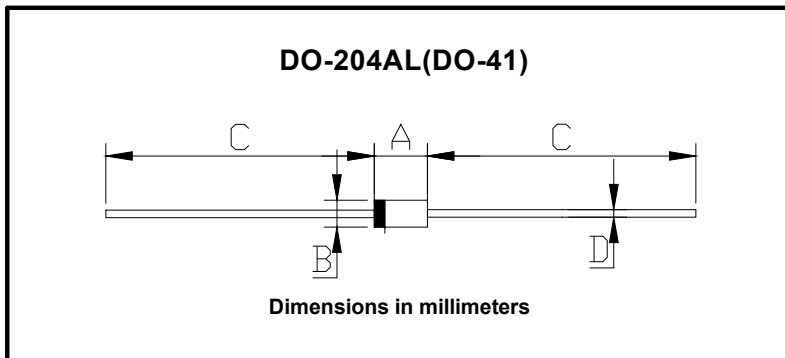


# 1N4933 THRU 1N4937

FIG.5: Diagram of circuit and Testing wave form of reverse recovery time



## ■ Outline Dimensions



| DO-204AL(DO-41) |      |      |
|-----------------|------|------|
| Dim             | Min  | Max  |
| A               | 4.22 | 5.21 |
| B               | 2.03 | 2.72 |
| C               | 25.4 | /    |
| D               | 0.69 | 0.86 |



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