

## Fast Recovery Rectifier

### Features

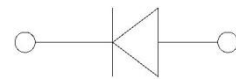
- High efficiency
- High current capability
- High reliability
- High surge current capability
- Low power loss
- Glass passivated chip junction
- Solder dip 275 °C max. 7 s, per JESD 22-B106

### Typical Applications

For use in general purpose rectification of power supplies, inverters, converters, and freewheeling diodes for consumer, and telecommunication.

### Mechanical Data

- Package: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 (Ta=25°C Unless otherwise specified)

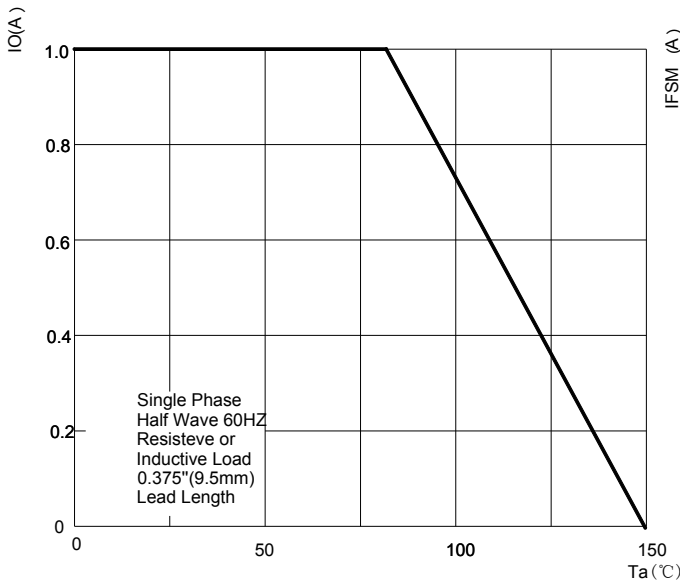
| PARAMETER   | Symbol            | Unit             | 1N4933G    | 1N4934G | 1N4935G | 1N4936G | 1N4937G |  |
|---|-------------------|------------------|------------|---------|---------|---------|---------|--|
| Maximum Repetitive Peak Reverse Voltage                                     | V <sub>RRM</sub>  | V                | 50         | 100     | 200     | 400     | 600     |  |
| Maximum RMS Voltage   | V <sub>RMS</sub>  | V                | 35         | 70      | 140     | 280     | 420     |  |
| Maximum DC blocking Voltage   | V <sub>DC</sub>   | V                | 50         | 100     | 200     | 400     | 600     |  |
| Average Forward Current<br>@Half-sine wave, Resistance load, Tc(Fig.1)      | I <sub>o</sub>    | A                | 1.0        |         |         |         |         |  |
| Forward Surge Current (Non-repetitive)<br>@60HZ sine wave, 1 cycle, Ta=25°C | I <sub>FSM</sub>  | A                | 30         |         |         |         |         |  |
| Current squared time<br>@1ms≤t8.3≤ms Ta=25°C, Rating of per diode           | I <sup>2</sup> t  | A <sup>2</sup> s | 3.7        |         |         |         |         |  |
| Thermal Resistance(Typical)<br>@Between junction and ambient                | R <sub>θJ-A</sub> | °C/W             | 60         |         |         |         |         |  |
| Storage Temperature   | T <sub>stg</sub>  | °C               | -55 ~ +150 |         |         |         |         |  |
| Junction Temperature  | T <sub>j</sub>    | °C               | -55 ~ +150 |         |         |         |         |  |

### ■ Electrical Characteristics (Ta=25°C Unless otherwise specified)

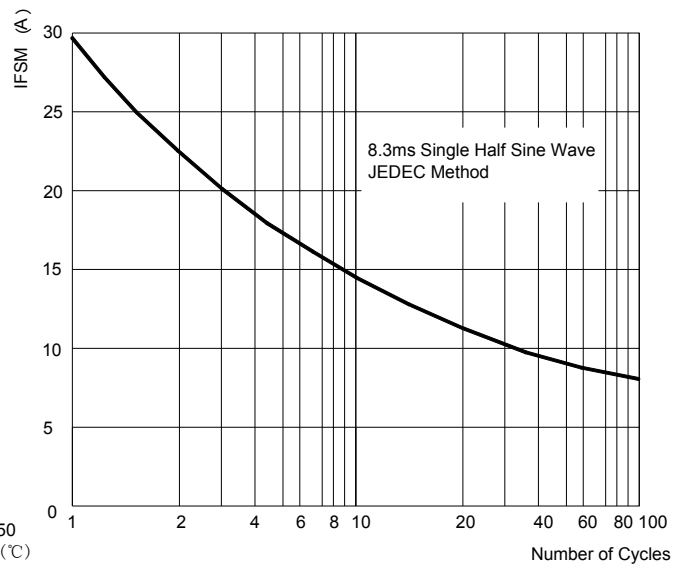
| PARAMETER                     | Symbol           | Unit | Conditions   | 1N4933G | 1N4934G | 1N4935G | 1N4936G | 1N4937G |
|-------------------------------|------------------|------|--|---------|---------|---------|---------|---------|
| Peak Forward Voltage          | V <sub>FM</sub>  | V    | I <sub>F</sub> = 1.0A  | 1.2     |         |         |         |         |
| Peak Reverse Current          | I <sub>RRM</sub> | μA   | V <sub>R</sub> = V <sub>DC</sub> @Ta=25°C                                | 2.5     |         |         |         |         |
|                               |                  |      | V <sub>R</sub> = V <sub>DC</sub> @Ta=125°C                               | 100     |         |         |         |         |
| Maximum reverse recovery time | T <sub>rr</sub>  | ns   | I <sub>F</sub> = 0.5A, I <sub>R</sub> = 1.0A,<br>I <sub>rr</sub> = 0.25A | 150     |         |         |         |         |

## ■ Characteristics (Typical)

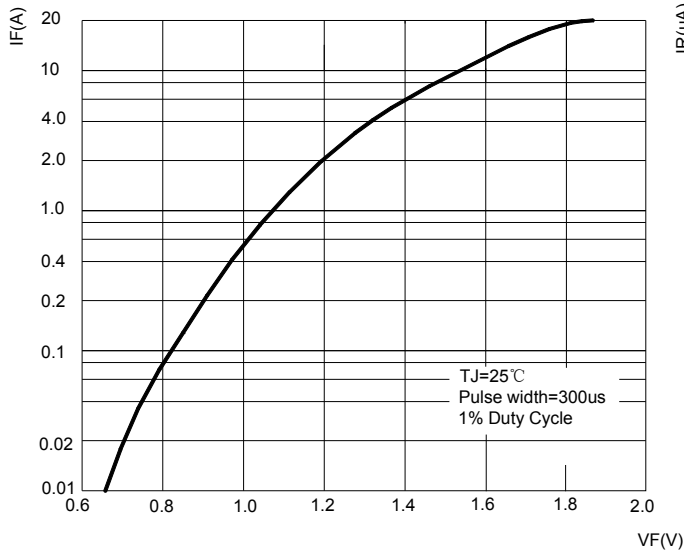
**FIG.1:  $I_o$ - $T_a$  Curve**



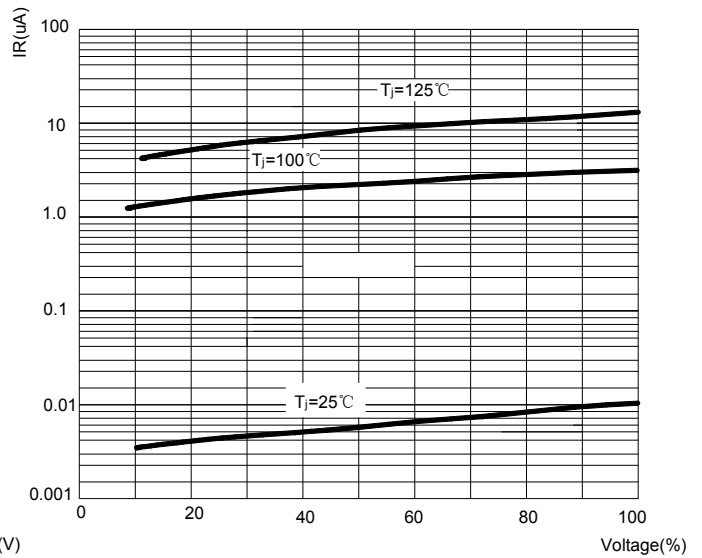
**FIG.2: Forward Surge Current Capability**



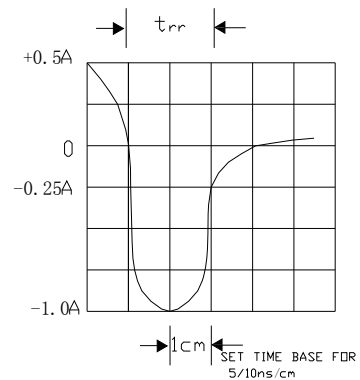
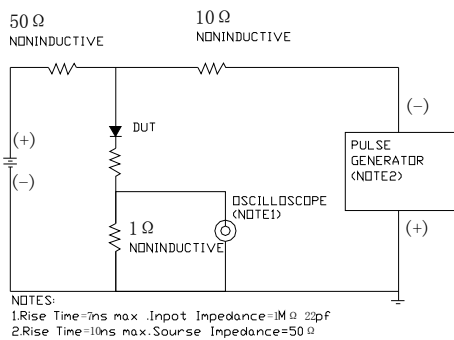
**FIG.3: Forward Voltage**



**FIG.4: Typical Reverse Characteristics**



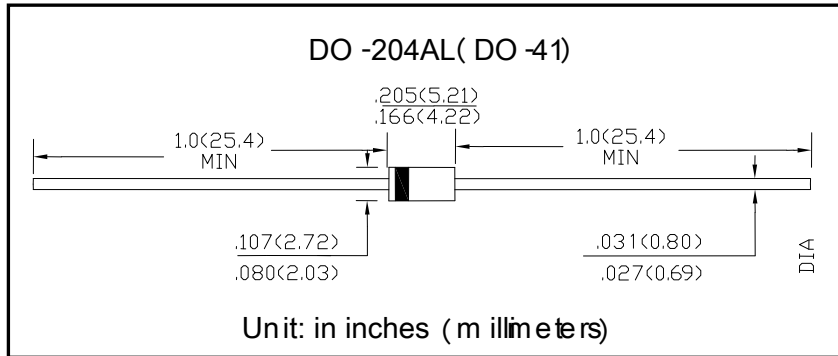
**FIG.5: Diagram of circuit and Testing wave form of reverse recovery time**



## ■ Ordering Information (Example)

| PREFERED             | PACKAGE CODE | MINIMUM PACKAGE(pcs) | INNER BOX QUANTITY(pcs) | OUTER CARTON QUANTITY(pcs) | DELIVERY MODE |
|----------------------|--------------|----------------------|-------------------------|----------------------------|---------------|
| 1N4933G THRU 1N4937G | DO-41        | 5000                 | 5000                    | 50000                      | Ammo box      |

## ■ Outline Dimensions



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