

# 1N4933 - 1N4937

**PRV : 50 - 600 Volts**  
**Io : 1.0 Amperes**

## FEATURES :

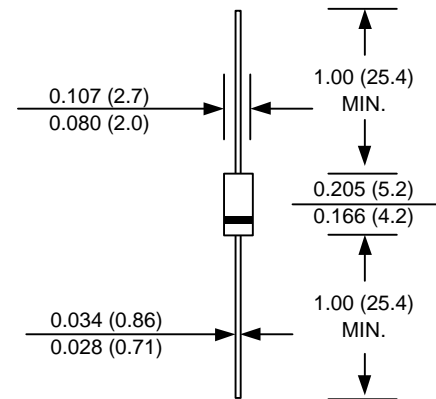
- \* High current capability
- \* High surge current capability
- \* High reliability
- \* Low reverse current
- \* Low forward voltage drop
- \* Fast switching for high efficiency
- \* Pb / RoHS Free

## MECHANICAL DATA :

- \* Case : DO-41 Molded plastic
- \* Epoxy : UL94V-O rate flame retardant
- \* Lead : Axial lead solderable per MIL-STD-202, Method 208 guaranteed
- \* Polarity : Color band denotes cathode end
- \* Mounting position : Any
- \* Weight : 0.34 gram

## FAST RECOVERY RECTIFIER DIODES

### DO - 41



Dimensions in inches and ( millimeters )

## 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%.

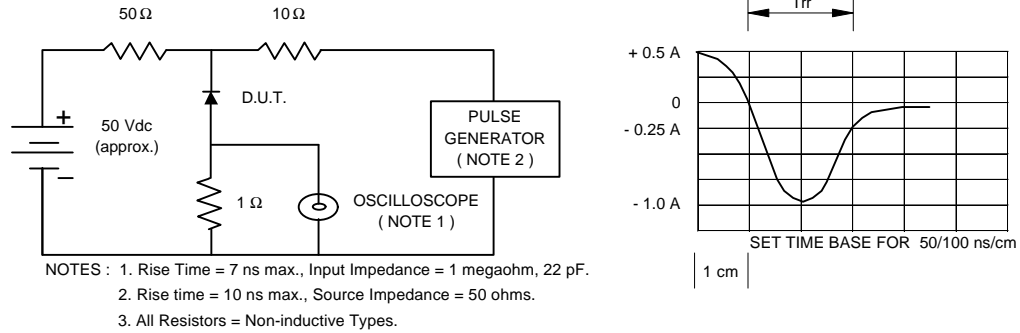
| RATING  | SYMBOL | 1N4933        | 1N4934 | 1N4935 | 1N4936 | 1N4937 | UNIT |
|---|--------|---------------|--------|--------|--------|--------|------|
| Maximum Recurrent Peak Reverse Voltage  | VRRM   | 50            | 100    | 200    | 400    | 600    | V    |
| Maximum RMS Voltage   | VRMS   | 35            | 70     | 140    | 280    | 420    | V    |
| Maximum DC Blocking Voltage   | VDC    | 50            | 100    | 200    | 400    | 600    | V    |
| Maximum Average Forward Current<br>0.375"(9.5mm) Lead Length Ta = 50 °C   | IF(AV) | 1.0           |        |        |        |        | A    |
| Maximum Peak Forward Surge Current,<br>8.3ms Single half sine wave Superimposed<br>on rated load (JEDEC Method) | IFSM   | 30            |        |        |        |        | A    |
| Maximum Peak Forward Voltage at IF = 1.0 Amp.   | VF     | 1.2           |        |        |        |        | V    |
| Maximum DC Reverse Current Ta = 25 °C<br>at Rated DC Blocking Voltage Ta = 100 °C                               | IR     | 5.0           |        |        |        |        | μA   |
|   | IR(H)  | 100           |        |        |        |        | μA   |
| Maximum Reverse Recovery Time ( Note 1 )  | Trr    | 150           |        |        |        |        | ns   |
| Typical Junction Capacitance ( Note 2 )   | CJ     | 15            |        |        |        |        | pf   |
| Junction Temperature Range  | TJ     | - 65 to + 150 |        |        |        |        | °C   |
| Storage Temperature Range   | TSTG   | - 65 to + 150 |        |        |        |        | °C   |

## Notes :

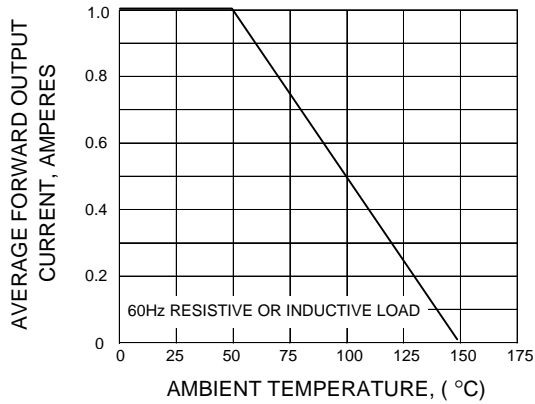
- ( 1 ) Reverse Recovery Test Conditions : IF = 0.5 A, IR = 1.0 A, Irr = 0.25 A.
- ( 2 ) Measured at 1.0 MHz and applied reverse voltage of 4.0 Vdc

## RATING AND CHARACTERISTIC CURVES ( 1N4933 - 1N4937 )

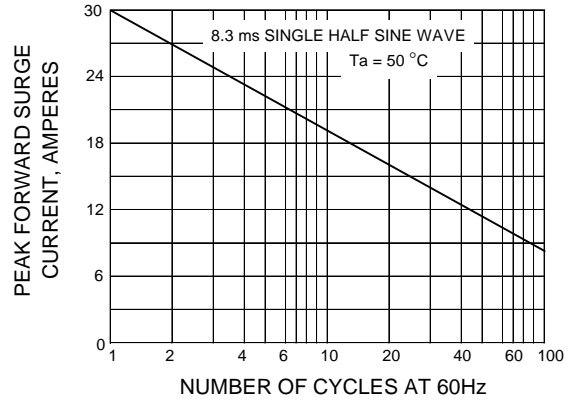
**FIG.1 - REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM**



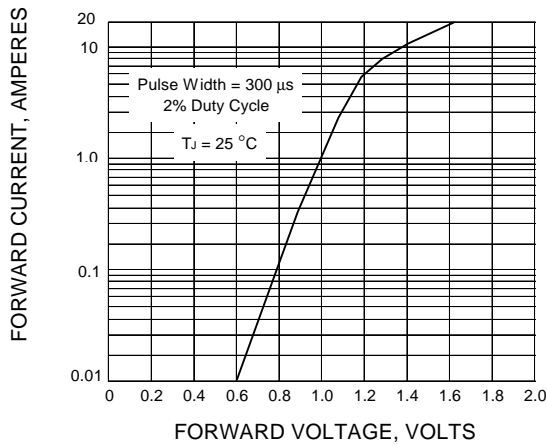
**FIG.2 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT**



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



**FIG.4 - TYPICAL FORWARD CHARACTERISTICS**



**FIG.5 - TYPICAL REVERSE CHARACTERISTICS**

