

1N4933 THRU 1N4937

FAST RECOVERY RECTIFIER

Reverse Voltage - 50 to 600 Volts

Forward Current - 1.0Amperes

FEATURES

. Plastic package has Underwrites Laboratory

Flammability Classification 94V-0

- . Fast switching speed
- . Construction utilizes void-free molded plastic technique
- . 1.0A operation at TA=75 ℃ with to terminal runaway
- . High temperature soldering guaranteed: 250 \(^1\)0 seconds,

0.375"(9.5mm)lead length,5lbs.(2.3kg)tension

MECHANICAL DATA

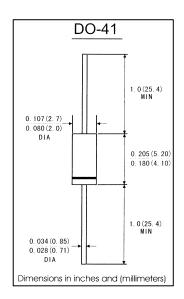
. Case: JEDEC DO-41 molded plastic body

. Terminals: lead solderable per MIL-STD-750,method 2026

. Polarity: Color band denotes cathode end

. Mounting Position: Any

. Weight: 0.012 ounce, 0.34 gram



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(Ratings at 25 ^{**}C ambient temperature unless otherwise specified, Single phase, half wave 60Hz, resistive or inductive)

load. For capacitive load, derate current by 20%)

| | Symbols | 1N4933 | 1N4934 | 1N4935 | 1N4936 | 1N4937 | Units |
|--|-----------|-------------|--------|--------|--------|--------|--------|
| Maximum repetitive peak reverse voltage | VRRM | 50 | 100 | 200 | 400 | 600 | Volts |
| Maximum RMS voltage | VRMS | 35 | 70 | 140 | 280 | 420 | Volts |
| Maximum DC blocking voltage | VDC | 50 | 100 | 200 | 400 | 600 | Volts |
| Macimum average forward rectified | l(AV) | 1.0 | | | | | Amp |
| current 0.375"(9.5mm)lead length at TA=75 C | ,,,,, | | | | | | 7 tinp |
| Peak forward surge current 8.3ms | | | | | | | |
| sing-wave superimposed on rated load | IFSM 30.0 | | | | | | Amps |
| (JEDEC method)TA=75 °C | | | | | | | |
| Maximum instantaneous forward voltage at 1.0 A | VF | 1.3 | | | | | Volts |
| Maximum DC Rreverse Current at rated DC | 5.0 | | | | | | |
| blocking voltage | | | | | | | |
| Maximum full load reverse current full cycle | IR | | | | | μА | |
| average. 0.375"(9.5mm)lead length at | 100 | | | | | | |
| TL=55 °C | | | | | | | |
| Maximum reverse recovery time(Note 1) | Trr | 200.0 | | | | | ns |
| Typical junction Capacitance(Note 2) | Cı | 15.0 | | | | | pF |
| Operating and storage temperature range | ТЈ ТЅТС | -65 to +150 | | | | | ņ |

Notes: 1.Test conditions:IF=0.5A,IR=1.0A,Irr=0.25A.

2.Measured at 1MHz and applied reverse voltage of 4.0V Volts



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RATINGS AND CHARACTERISTIC CURVES 1N4933 THRU 1N4937

FLG.1-TYPICAL FORWARD CURRENT

DERATING CURVE

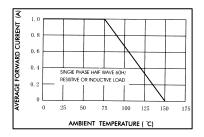


FIG.2-MAXIMUM NON-REPETITIVE PEAK

FORWARD SURGE CURRENT

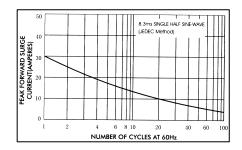
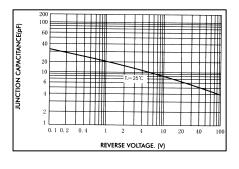


FIG.4-TYPICAL INSTANTANEOUS FORWARD

CHARACTERISTICS



10 0.03 0.03 0.03 0.04 0.6 0.8 1.0 1.2 1.4 1.6 1.8 0.00 0.4 0.6 0.8 1.0 1.2 1.4 1.6 1.8

INSTANTANEOUS FORWARD VOLTAGE (VOLTS)

FIG.5-TEST CIRCUIT DIAGRAM AND REVERSE

FIG.3-TYPICAL JUNCTION CAPACITANCE

RECOVERY TIME CHARACTERISIC

