

# 1N4933 THRU 1N4937

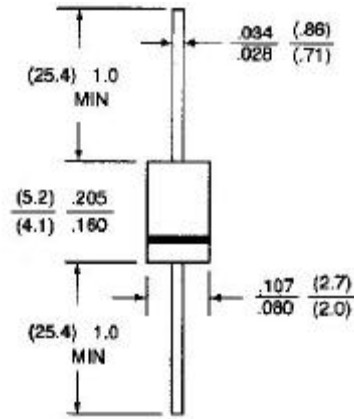
## FAST SWITCHING PLASTIC RECTIFIER

VOLTAGE - 50 to 600 Volts CURRENT - 1.0 Ampere

### FEATURES

- High surge current capability
- Plastic package has Underwriters Laboratory Flammability Classification 94V-O Utilizing Flame Retardant Epoxy Molding Compound
- Void-free Plastic in a DO-41 package
- 1.0 ampere operation at  $T_A=55$  with no thermal runaway
- Fast switching for high efficiency
- Exceeds environmental standards of MIL-S-19500/228

### DO-41



Dimensions in inches and (millimeters)

### MECHANICAL DATA

Case: Molded plastic, DO-41

Terminals: Axial leads, solderable per MIL-STD-202,

Method 208

Polarity: Band denotes cathode

Mounting Position: Any

Weight: 0.012 ounce, 0.3 gram

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

	1N4933	1N4934	1N4935	1N4936	1N4937	UNITS
Maximum Recurrent Peak Reverse Voltage	50	100	200	400	600	V
Maximum RMS Voltage	35	70	140	280	420	V
Maximum DC Blocking Voltage	50	100	200	400	600	V
Maximum Average Forward Rectified Current .375"(9.5mm) lead length at $T_A=55$	1.0					A
Peak Forward Surge Current 8.3ms single half sine wave superimposed on rated load(JEDEC method)	30					A
Maximum Forward Voltage at 1.0A	1.2					V
Maximum Reverse Current $T_J=25$	5.0					A
at Rated DC Blocking Voltage $T_J=100$	500					A
Typical Junction capacitance (Note 1) $C_J$	12					pF
Maximum Reverse Recovery Time(Note 2)	200					ns
Typical Thermal Resistance (Note 3) $R_{JA}$	41					/W
Storage and Operating Temperature Range	-55 to +150					

NOTES:

1. Measured at 1 MHz and applied reverse voltage of 4.0 VDC
2. Reverse Recovery Test Conditions:  $I_F= .5A$ ,  $I_R=1A$ ,  $I_{rr}=.25A$
3. Thermal resistance from junction to ambient and from junction to lead at 0.375"(9.5mm) lead length P.C.B. mounted

RATING AND CHARACTERISTIC CURVES

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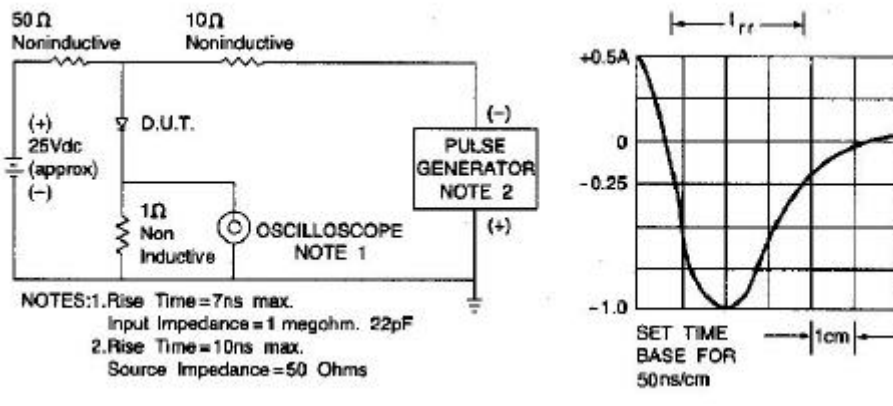


Fig. 1-REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

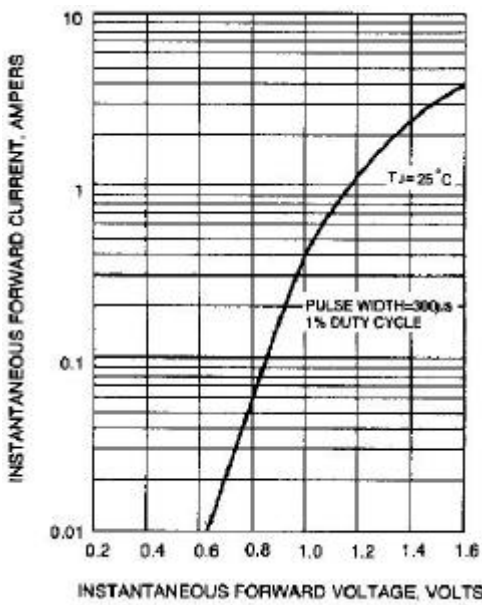


Fig. 2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

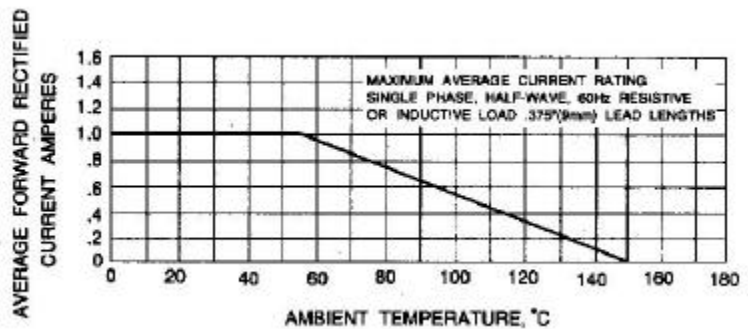


Fig. 3-FORWARD CURRENT DERATING CURVE

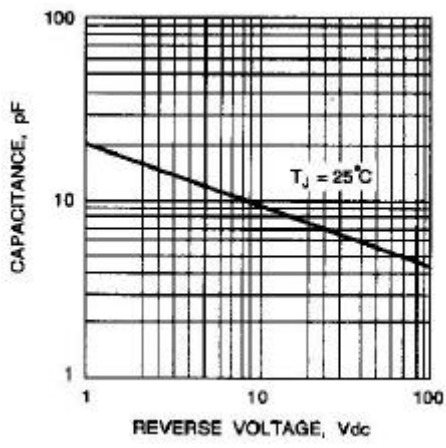


Fig. 4-TYPICAL JUNCTION CAPACITANCE

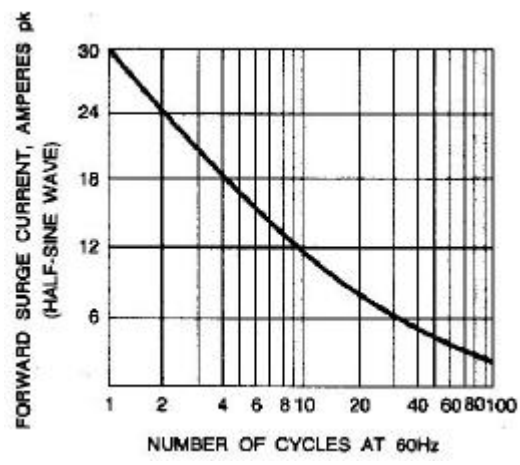


Fig. 5-PEAK FORWARD SURGE CURRENT