

1N4933 THRU 1N4937

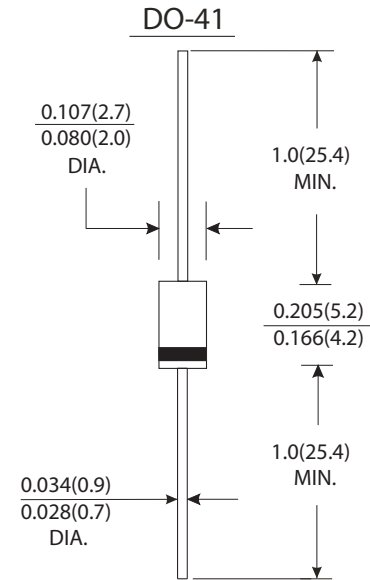
CURRENT 1.0 Ampere
VOLTAGE 50 to 600 Volts

Features

- Plastic package has Underwrites Laboratory Flammability Classification 94V-0
- Fast switching speed
- Construction utilizes void-free molded plastic technique
- 1.0A operation at $T_A=75^{\circ}\text{C}$ with to terminal runaway
- High temperature soldering guaranteed : $250^{\circ}\text{C}/10$ seconds, 0.375"(9.5mm) lead length, 5 lbs.(2.3kg) tension.

Mechanical Data

- Case : JEDEC DO-41 molded plastic body
- Terminals : Plated axial lead solderable per MIL-STD-750, method 2026
- Polarity : Color band denotes cathode end
- Mounting Position : Any
- Weight : 0.012 ounce, 0.34 gram



Dimensions in inches and (millimeters)

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 by 20%)

	Symbols	1N4933	1N4934	1N4935	1N4936	1N4937	Units
Maximum recurrent 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
Maximum average forward rectified current 0.375"(9.5mm) lead length TA=75°C	I(AV)	1.0					Amp
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method) at TA=75°C	IFSM	30.0					Amps
Maximum instantaneous forward voltage at 1.0A	VF	1.3					Volts
Maximum DC reverse current at rated DC blocking voltage	IR	5.0					μ A
Maximum full load reverse current full cycle average. 0.375"(9.5mm) lead length at TL=55°C		100					
Maximum reverse recovery time (Note 1)	Trr	150					ns
Typical junction capacitance (Note 2)	CJ	15.0					pF
Operating junction and storage temperature range	TJ TSTG	-65 to +150					°C

Notes:

- (1) Test conditions: $I_F=1.0\text{A}$, $V_R=30\text{V}$, $di/dt=50\text{A}/\mu\text{ S}$, and $I_{rr}=10\%I_{RM}$.
- (2) Measured at 1MHz and applied reverse voltage of 4.0 Volts.

RATINGS AND CHARACTERISTIC CURVES 1N4933 THRU 1N4937

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

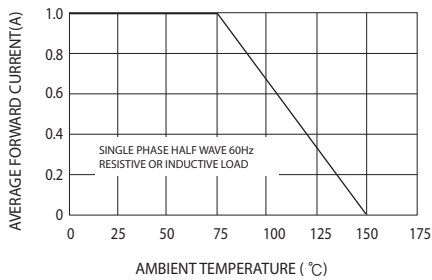


FIG.2-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

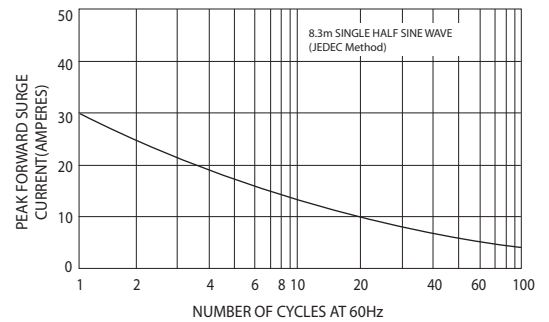


FIG.3-TYPICAL JUNCTION CAPACITANCE

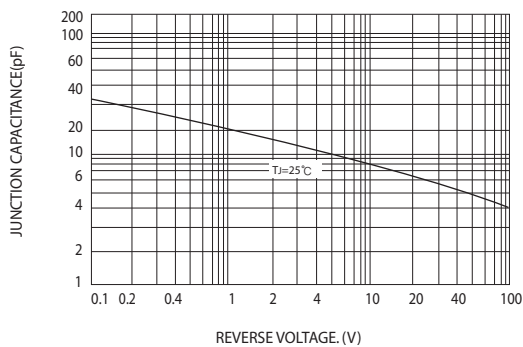


FIG.4-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

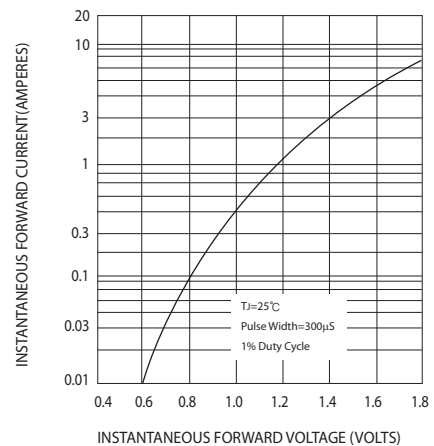
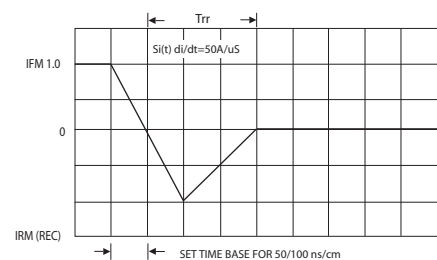
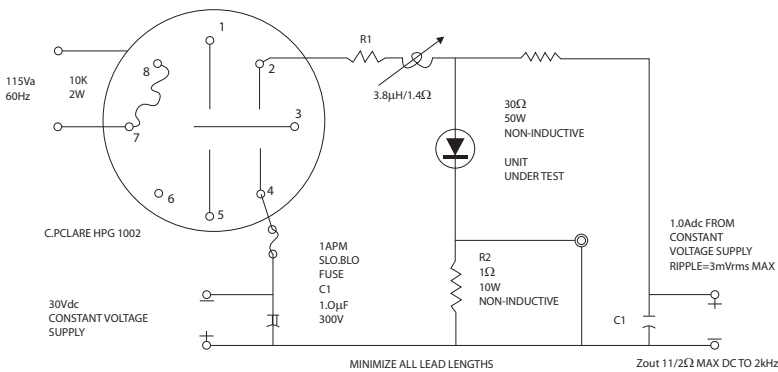


FIG.5-TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



A. TEKTRONIX 545A.K PLUG IN PRE AMP P6000 PROBE OR EQUIVALENT R1-ADJUSTED FOR 1.4Ω BETWEEN POINT 2 OF RELAY AND RECTIFIER INDUCTIVE=3.8µH
R2-TEN-1W 10Ω% CARBON CORE IN PARALLEL T_A=25 +10°C FOR RECTIFIER