RECTRON
SEMICONDUCTOR
TECHNICAL SPECIFICATION

1N4933 THRU 1N4937

FAST RECOVERY RECTIFIER

VOLTAGE RANGE 50 to 600 Volts CURRENT 1.0 Ampere

FEATURES

* Low cost
* Low leakage
* Low forward voltage drop
* High current capability

MECHANICAL DATA

* Case: Molded plastic
* Epoxy: Device has UL flammability classification 94V-O
* Lead: MIL-STD-202E method 208C guaranteed
* Mounting position: Any
* Weight: 0.33 gram

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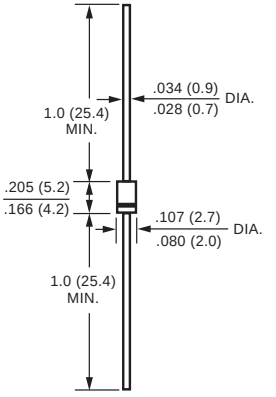

Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings 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%.

MAXIMUM RATINGS (At T_A = 25°C unless otherwise noted)

RATINGS	SYMBOL	1N4933	1N4934	1N4935	1N4936	1N4937	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	Volts
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	Volts
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	Volts
Maximum Average Forward Rectified Current at T_A = 75°C	I_O	1.0					Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	30					Amps
Typical Junction Capacitance (Note 2)	C_J	15					pF
Operating and Storage Temperature Range	T_J, T_{STG}	-65 to + 150					°C

ELECTRICAL CHARACTERISTICS (At T_A = 25°C unless otherwise noted)

CHARACTERISTICS	SYMBOL	1N4933	1N4934	1N4935	1N4936	1N4937	UNITS
Maximum Instantaneous Forward Voltage at 1.0A DC	V_F	1.2					Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage T_A = 25°C	I_R	5.0					uAmps
Maximum Full Load Reverse Current Full Cycle Average, .375" (9.5mm) lead length at T_L = 55°C		100					uAmps
Maximum Reverse Recovery Time (Note 1)	trr	200					nSec

NOTES : 1. Test Conditions: I_F = 1.0A, V_R = 30V
2. Measured at 1 MHz and applied reverse voltage of 4.0 volts

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RATING AND CHARACTERISTIC CURVES (1N4933 THRU 1N4937)

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

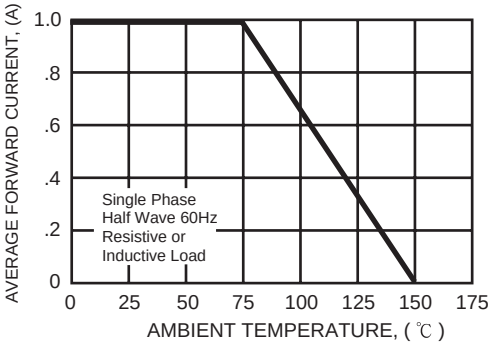

FIG. 2 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

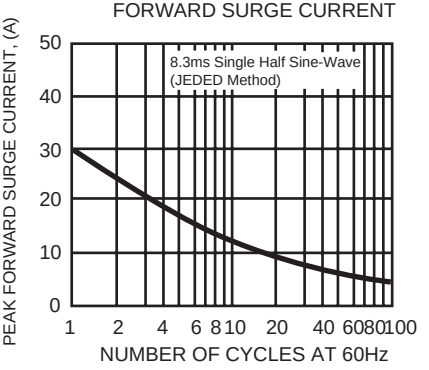

FIG. 3 - TYPICAL JUNCTION CAPACITANCE

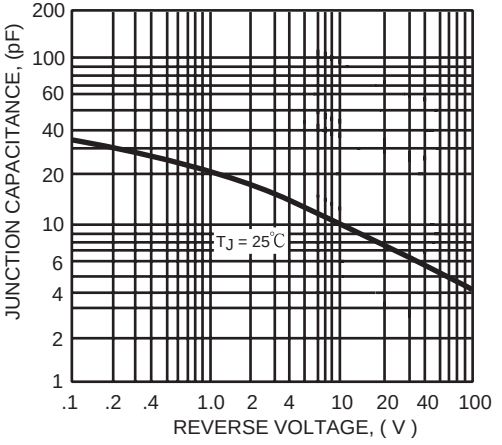

FIG. 4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

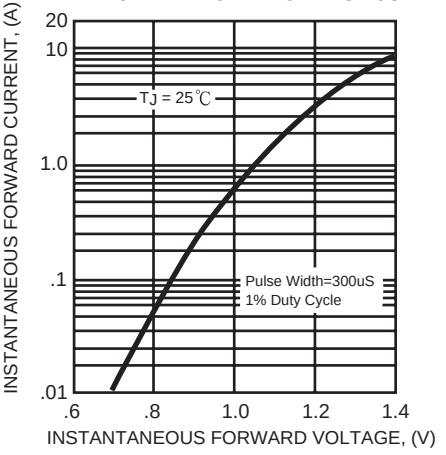

FIG. 5 - TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC