



# 1N4933 THRU 1N4937

## 1.0 AMP. GLASS PASSIVATED FAST RECOVERY RECTIFIERS



**VOLTAGE RANGE**  
50 to 600 Volts  
**CURRENT**  
1.0 Amperes

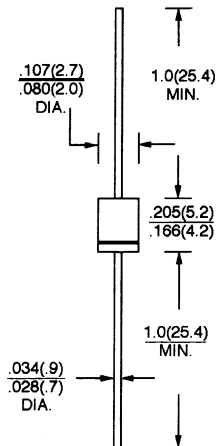
### FEATURES

- \* Low forward voltage drop
- \* High current capability
- \* High reliability
- \* High surge current capability

### MECHANICAL DATA

- \* Case: Molded plastic
- \* Epoxy: UL 94V-0 rate flame retardant
- \* Lead: Axial leads, solderable per MIL-STD-202, method 208 guaranteed
- \* Polarity: Color band denotes cathode end
- \* Mounting Position: Any
- \* Weight: 0.34grams

### 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%

TYPE NUMBER	SYMBOLS	1N4933	1N4934	1N4935	1N4936	1N4937	UNITS
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	V
Maximum RMS Voltage	$V_{RMS}$	35	70	140	280	420	V
Maximum D. C Blocking Voltage	$V_{DC}$	50	100	200	400	600	V
Maximum Average Forward Rectified Current .375" (9.5mm) lead length @ $T_A = 55^\circ\text{C}$	$I_{F(AV)}$	1.0					A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load(JEDEC method)	$I_{FSM}$	30					A
Maximum Instantaneous Forward Voltage at 1.0A	$V_F$	1.2					V
Maximum D. C Reverse Current @ $T_A = 25^\circ\text{C}$ at Rated D. C Blocking Voltage @ $T_A = 100^\circ\text{C}$	$I_R$	5,0 100					$\mu\text{A}$ $\mu\text{A}$
Maximum Reverse Recovery Time(Note 1)	$T_{RR}$	150					nS
Typical Junction Capacitance (Note 2)	$C_J$	15					pF
Operating Temperature Range	$T_J$	- 65 to + 125					$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	- 65 to + 150					$^\circ\text{C}$

NOTES: 1. Reverse Recovery Test Conditions:  $I_F = 0.5\text{A}$ ,  $I_R = 1.0\text{A}$ ,  $I_{RR} = 0.25\text{A}$ .  
2. Measured at 1 MHz and applied reverse voltage of 4.0V D. C.

## RATINGS AND CHARACTERISTIC CURVES (1N4933 THRU 1N4937)

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

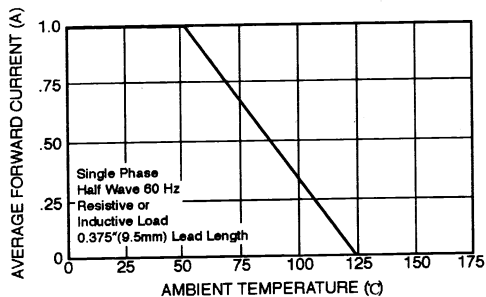


FIG. 2 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

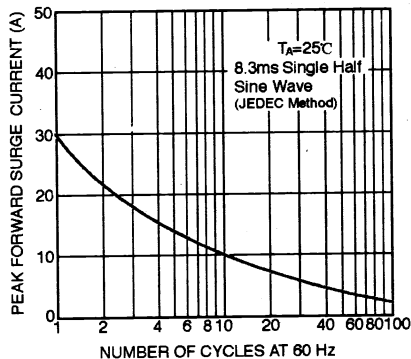


FIG. 3 - TYPICAL FORWARD CHARACTERISTICS

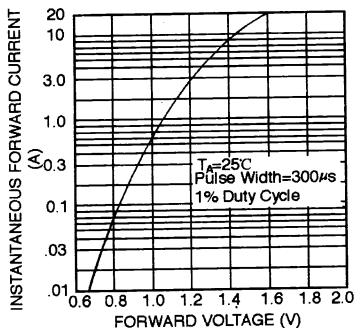


FIG. 4 - TYPICAL JUNCTION CAPACITANCE

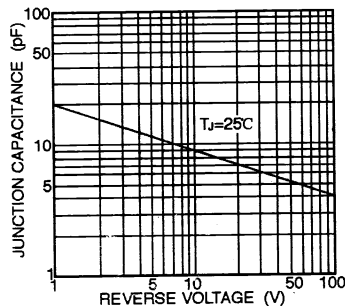


FIG. 5 - TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTICS

