Compact Technology

1N4933 thru 1N4937

FAST RECOVERY RECTIFIERS

REVERSE VOLTAGE **- 50** to **600** Volts
FORWARD CURRENT **- 1.0** Ampere

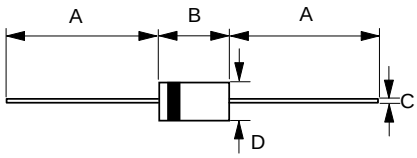
FEATURES

- Fast switching for high efficiency
- Low cost
- Diffused junction
- Low reverse leakage current
- Low forward voltage drop
- High current capability
- The plastic material carries UL recognition 94V-0

MECHANICAL DATA

- Case : JEDEC DO-41 molded plastic
- Polarity : Color band denotes cathode
- Weight : 0.012 ounces, 0.34 grams
- Mounting position : Any

DO-41



	DO-41	
Dim.	Min.	Max.
A	25.4	-
B	4.20	5.20
C	0.70 ∅	0.90 ∅
D	2.00 ∅	2.70 ∅
All Dimensions in millimeter		

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

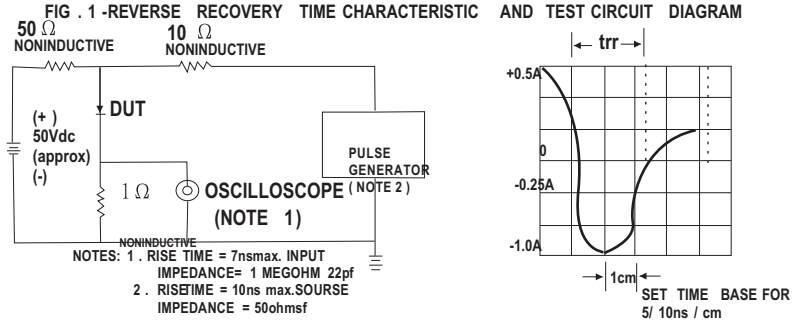
Ratings at 25℃ ambient temperature unless otherwise specified.
Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%

CHARACTERISTICS	SYMBOL	1N4933	1N4934	1N4935	1N4936	1N4937	UNIT
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 DC Blocking Voltage	V_{DC}	50	100	200	400	600	V
Maximum Average Forward Rectified Current @T_A =75˚C	$I_{(AV)}$	1.0					A
Peak Forward Surge Current 8.3ms single half sine-wave super imposed on rated load(JEDEC Method)	I_{FSM}	30					A
Maximum forward Voltage at 1.0A DC	V_F	1.3					V
Maximum DC Reverse Current @T_J =25˚C at Rated DC Blocking Voltage @T_J =100˚C	I_R	5.0 100					uA uA
Maximum Reverse Recovery Time (Note 1)	T_{RR}	200					ns
Maximum Reverse Recovery Time (Note 2)	T_{RR}	130					ns
Typical Junction Capacitance (Note 3)	C_J	15					pF
Typical Thermal Resistance (Note 4)	$R_{\theta JA}$	50					˚C/W
Operating Temperature Range	T_J	-55 to +150					˚C
Storage Temperature Range	T_{STG}	-55 to +150					˚C

NOTES : 1.Measured with I_F=1.0A,V_R=30V,di/dt=50A/us.
2.Measured with I_F=0.5A,I_R=1A,I_{RR}=0.25A.
3.Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
4.Thermal Resistance Junction to Ambient.

RATING AND CHARACTERISTIC CURVES

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



NOTES: 1 . RISE TIME = 7nsmax. INPUT IMPEDANCE= 1 MEGOHM 22pf
2 . RISETIME = 10ns max.SOURSE IMPEDANCE = 50ohmsf

FIG . 2 -MAXIMUMF FORWARD CURRENT DERATING CURVE

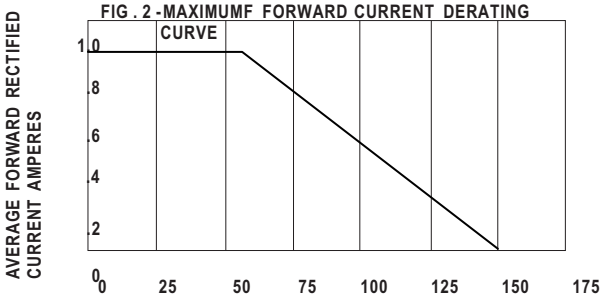


FIG . 3 -MAXIMUM NON- REPETITIVE FORWARD SURE CURRENT

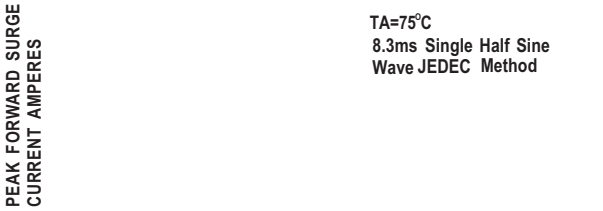


FIG . 4 -TYPICAL HUNCTION CAPACITANCE

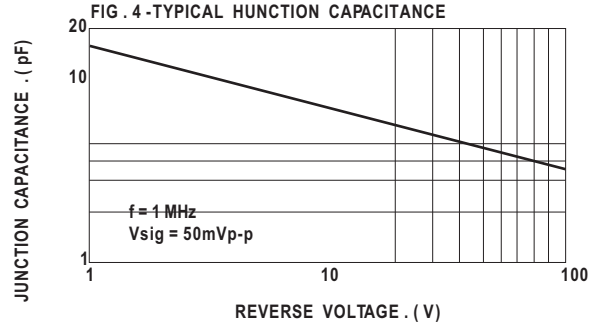


FIG . 5 -TYPICAL FORWARD CHARACTERISTICS

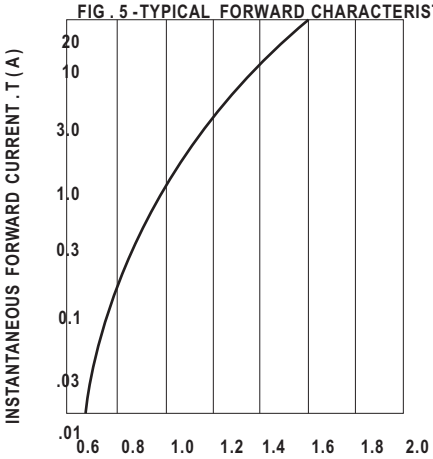


FIG . 6 -TYPICAL REVERSE CHARACTIERISTICS

