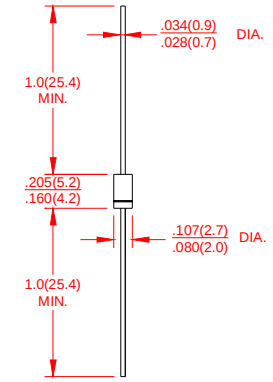
FAST RECOVER RECTIFIER

1N4933 THRU 1N4937

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

DO-41



Dimensions in inches and (millimeters)

FEATURES

- Low coat construction
- Fast switching for high efficency.
- Low reverse leakage
- High forward surge current capability
- High temperature soldering guaranteed:
  260℃/10 secods/.375”(9.5mm)lead length at 5 lbs(2.3kg) tension

MECHANICAL DATA

- Case: Transfer molded plastic
- Epoxy: UL94V-O rate flame retardant
- Polarity: Color band denotes cathode end
- Lead: Plated axial lead, solderable per MIL-STD-202E method 208C
- Mounting position: Any
- Weight: 0.012 ounce, 0.33 grams

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

- Ratings at 25^{O}C ambient temperature unless otherwise specified
- Single Phase, half wave, 60Hz, resistive or inductive load
- For capacitive load derate current by 20%

	SYMBOLS	1N4933	1N4934	1N4935	1N4936	1N4937	UNITS
Maximum Repetitive 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 0.375”(9.5mm) lead length at T_A= 75℃	$I_{(AV)}$	1.0					Amp
Peak Forward Surge Current 8.3mS single half sine wave superimposed on rated load (JEDEC method)	I_{FSM}	30					Amps
Maximum Instantaneous Forward Voltage @ 1.0A	V_F	1.2					Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage T_A = 25℃	I_R	5.0					μA
Maximum DC Reverse Current at Rated DC Blocking Voltage T_A = 100℃	I_R	100					μA
Maximum Reverse Recovery Time (Note 3) T_J=25℃	trr	200					ns
Maximum Reverse Recovery Current (NOTE 3)	I_{RM}(REC)	2.0					Amps
Typical Junction Capacitance (Note 1)	C_J	15					pF
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	50					℃/W
Operating Junction Temperature Range	T_J	(-55 to +150)					℃
Storage Temperature Range	T_{STG}	(-55 to +150)					℃

Notes:

1.Measured at 1.0MHz and Applied Reverse Voltage of 4.0Volits.

2 Thermal Resistance from junction to Ambient at .375”(9.5mm)lead length, P.C.board mounted.

3.Reverse Recovery Test Conditions:If=1.0A,Vr=30V,di/ dt=50A/us,Irr=10% Irr=10% Irm for the measurement of trr.

FAST RECOVER RECTIFIER

1N4933 THRU 1N4937	VOLTAGE RANGE	50 to 600 Volts
	CURRENT	1.0 Ampere

RATING AND CHRACTERISTIC CURVES 1N4933 THRU 1N4937

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

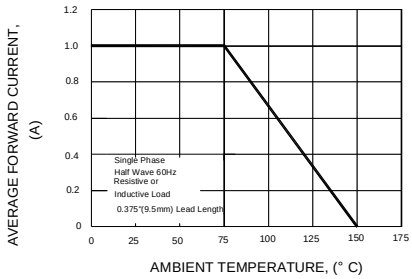


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

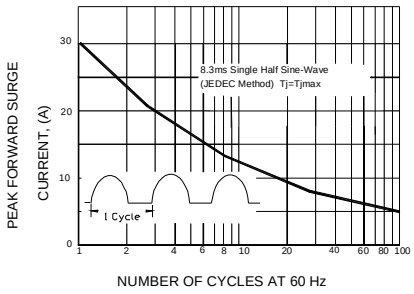
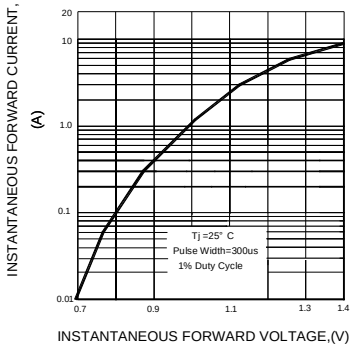


FIG.4-TYPICAL REVERSE CHARACTERISTICS

FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



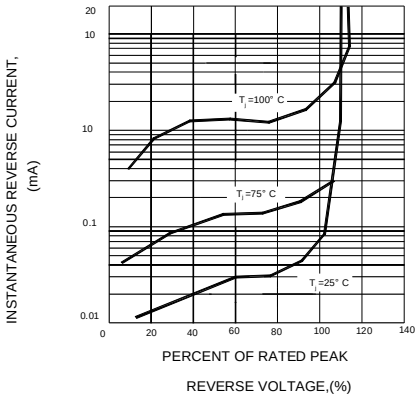


FIG.5-TYPICAL JUNCTION CAPACITANCE

