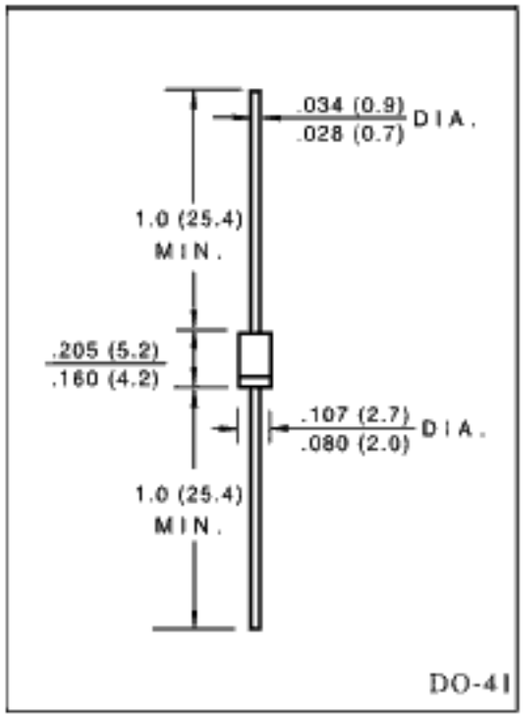
FAST RECOVERY RECTIFIER

1N4933 THRU 1N4937

VOLTAGE RANGE 50 to 600 Volts
CURRENT 1.0 Ampere

FEATURES

- Low cost construction.
- Fast switching for high efficiency.
- Low reverse leakage
- High forward surge current capability.
- High temperature soldering guaranteed: 260℃/10 seconds, 0.375" (9.5mm)lead length at 5 lbs (2.3kg) tension.



MECHANICAL DATA

- Case: transfer molded plastic
- Epoxy: UL94V - 0 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, 0.33grams

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%

	SYMBOLS	1N4933	1N4934	1N4935	1N4936	1N4937	UNIT
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 at 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℃	t_{rr}	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 (Note2)	$R_{\theta JA}$	50					℃/W
Operating and Storage Temperature Range	T_J	(-65 to +150)					℃
Storage Temperature Range	T_{STG}	(-65 to +150)					℃

NOTES:

1. Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts.
2. Thermal Resistance from Junction to Ambient at 0.375" (9.5mm) lead length, P.C. board mounted.
3. Reverse Recovery Test Condition: I_F =1.0A, V_R = 30V, $^{di}/_{dt}$ =50A/μs, I_{RR} = 10% I_{RM} for the measurement of t_{rr}.

RATINGS AND CHARACTERISTIC CURVES IN4933 THRU IN4937

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

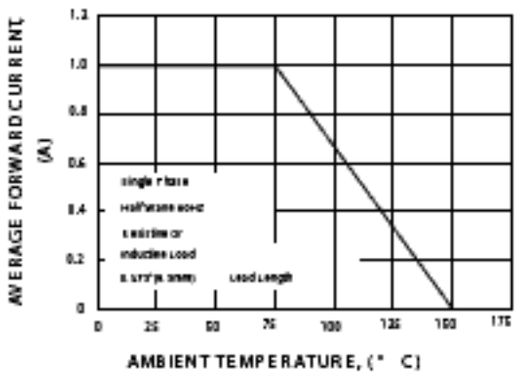


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

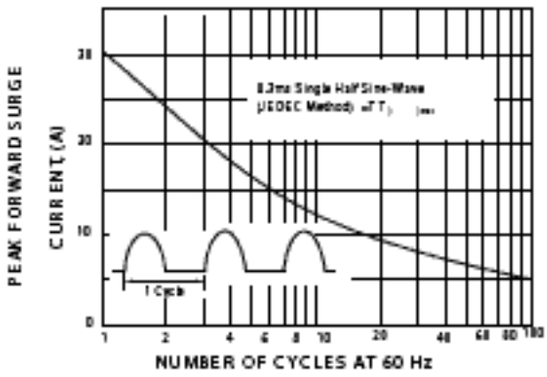


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

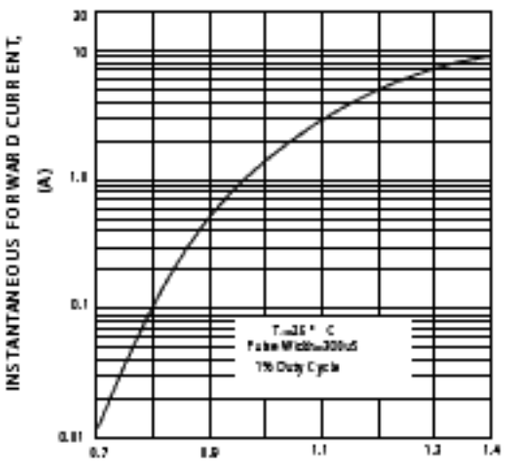


FIG.4-TYPICAL REVERSE CHARACTERISTICS

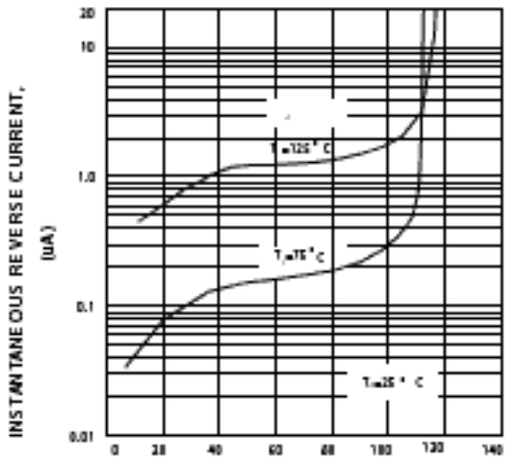


FIG.5-TYPICAL JUNCTION CAPACITANCE