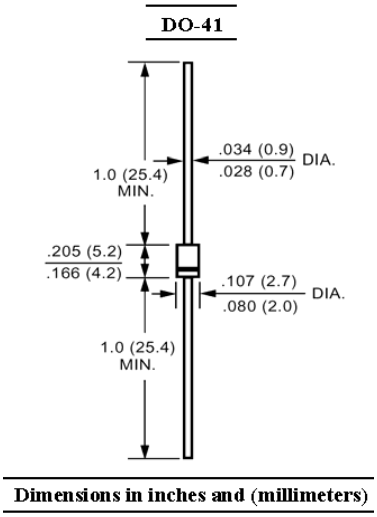
1N4933 THRU 1N4937

Fast Recovery Rectifiers

Reverse Voltage - 50 to 600 V
Forward Current - 1 A



Dimensions in inches and (millimeters)

Features

- Fast switching for high efficiency
- High surge current capability

Mechanical Data

- Case: Molded plastic, DO-41
- Epoxy: UL 94V-0 rate flame retardant
- Polarity: Color band denotes cathode end
- Mounting Position: Any

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%.

Parameter	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 DC Blocking Voltage	V_{DC}	50	100	200	400	600	V
Maximum Average Forward Rectified Current 0.375" (9.5 mm) Lead Length at T_A = 55℃	$I_{F(AV)}$	1					A
Peak Forward Surge Current 8.3 ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	30					A
Maximum Forward Voltage at 1 A	V_F	1.2					V
Maximum Reverse Current T_A = 25 ℃ at Rated DC Blocking Voltage T_A = 100 ℃	I_R	5 50					μA
Typical Junction Capacitance [1]	C_J	12					pF
Maximum Reverse Recovery Time [2]	t_{rr}	200					ns
Typical Thermal Resistance, Junction to Ambient [3]	$R_{\theta JA}$	50					℃/W
Operating Junction Temperature Range	T_j	- 55 to + 125					℃
Storage Temperature Range	T_{stg}	- 55 to + 150					℃

[1] Measured at 1 MH_Z and applied reverse voltage of 4.0 VDC.

[2] Reverse recovery test conditions: I_F = 1 A, V_R = 30 V.

[3] Thermal resistance from junction to ambient 0.375"(9.5 mm) lead length P.C.B mounted.

Dated: 10/11/2020 H Rev: 02

Electrical characteristic curves

FIG.1- MAXIMUM TYPICAL FORWARD CURRENT DERATING CURVE

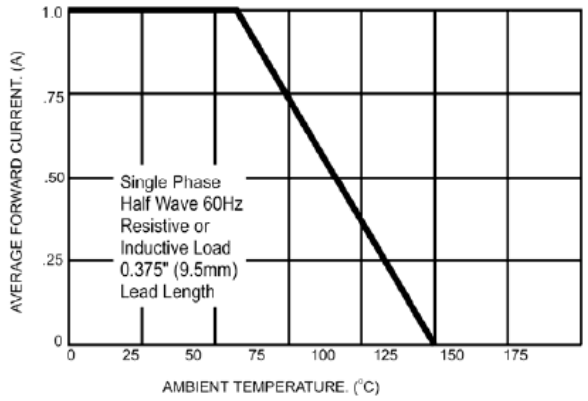


FIG. 2 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

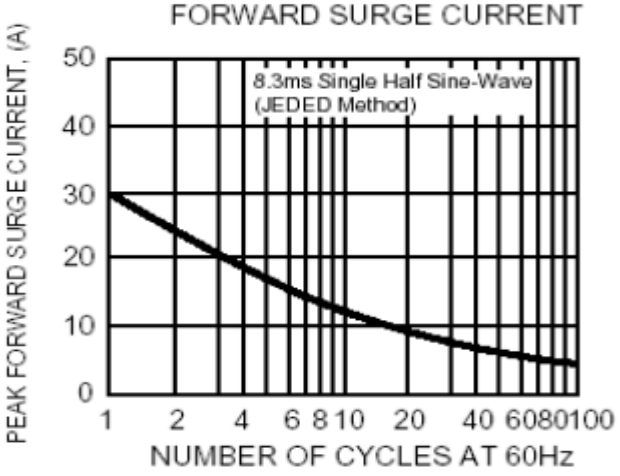


FIG. 3 - TYPICAL JUNCTION CAPACITANCE

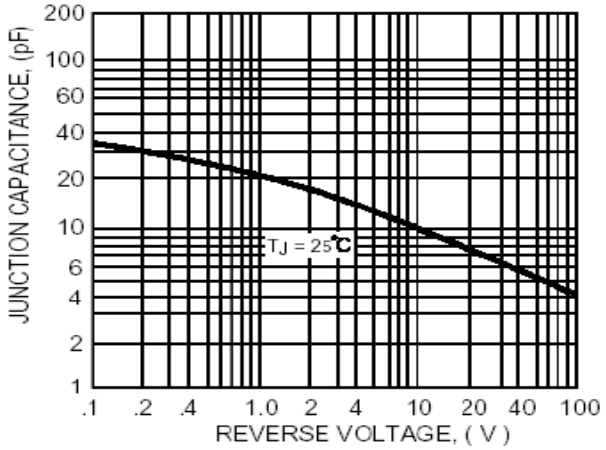


FIG. 4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS