



1N4933 thru 1N4937

Fast Recovery Rectifiers
Reverse Voltage 50 to 600 Volts Forward Current 1.0 Ampere

Features

- ◆ Plastic package has Underwriters Laboratories Flammability Classification 94V-0
- ◆ Fast switching for high efficiency
- ◆ Construction utilizes void-free molded plastic technique
- ◆ 1.0 Ampere operation at $T_A=75^\circ\text{C}$ with no thermal runaway
- ◆ High temperature soldering guaranteed: $250^\circ\text{C}/10$ seconds, 0.375" (9.5mm) lead length, 5 lbs. (2.3kg) tension
- ◆ T_J is 150°C (Max.) and T_{STG} is 175°C (Max.) with PI glue

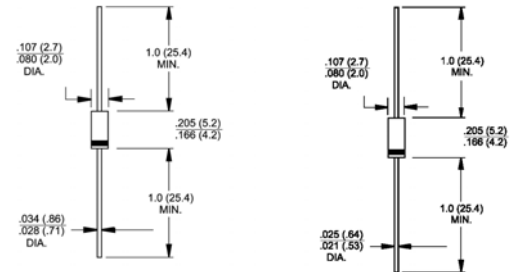


DO-204AL (DO-41)

A-405

Mechanical Data

- ◆ Case: JEDEC DO-204AL (DO-41)/A-405, molded plastic box
- ◆ Terminals: Plated axial leads, solderable per MIL-STD-750, Method 2026
- ◆ Polarity: Color band denotes cathode end
- ◆ Mounting Position: Any
- ◆ Weight: DO-41 - 0.012 ounce, 0.33 gram
A-405 - 0.008 ounce, 0.22 gram



Dimensions in inches and (millimeters) Dimensions in inches and (millimeters)

Note: Lead diameter is 0.025(0.64)/0.021(0.53) for suffix "S" part numbers

Maximum Ratings and Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	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 $T_A=75^\circ\text{C}$	$I_{F(AV)}$	1.0					Amp
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) at $T_A=75^\circ\text{C}$	I_{FSM}	30.0					Amps
Maximum reverse recovery current (Note 1)	I_{RM}	2.0					Amps
Maximum instantaneous forward voltage at 1.0A	V_F	1.2					Volts
Maximum DC reverse current @ $T_A=25^\circ\text{C}$ at rated DC blocking voltage @ $T_A=100^\circ\text{C}$	I_R	5.0 100					μA
Maximum reverse recovery time at $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $I_T=0.25\text{A}$	t_{rr}	200					nS
Typical junction capacitance at 4.0V, 1MHz	C_J	12					pF
Typical thermal resistance (Note 1)	$R_{\theta JA}$ $R_{\theta JL}$	55 25					$^\circ\text{C}/\text{W}$
Operating junction temperature range	T_J	-55 to +125					$^\circ\text{C}$
Storage temperature range	T_{STG}	-55 to +150					$^\circ\text{C}$

Notes: 1. Thermal resistance from junction to ambient, and from junction to lead at 0.375" (9.5mm) lead length, P.C.B. mounted

RATINGS AND CHARACTERISTIC CURVES

($T_A = 25^\circ\text{C}$ unless otherwise noted)

