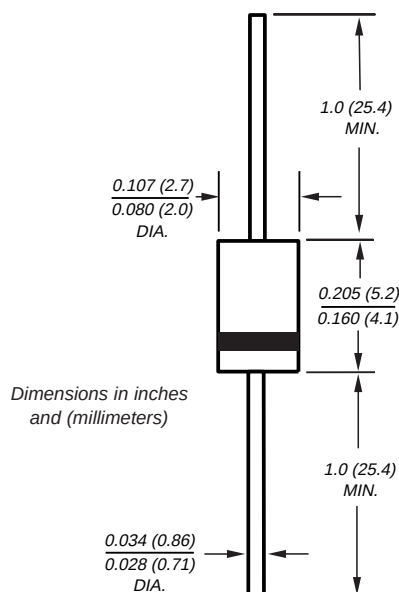




Fast Switching Plastic Rectifier

Reverse Voltage 50 to 600V
Forward Current 1.0A

DO-204AL (DO-41)



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

Mechanical Data

Case: JEDEC DO-204AL, molded plastic body**Terminals:** Plated axial leads, solderable per MIL-STD-750, Method 2026**Polarity:** Color band denotes cathode end**Mounting Position:** Any**Weight:** 0.012 oz., 0.3 g**Packaging codes/options:**

E2/4K per Ammo mag. (52mm tape), 20K/box

E3/5K per 13" reel (52mm tape), 10K/box

Maximum Ratings & Thermal Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	Symbol	1N4933	1N4934	1N4935	1N4936	1N4937	Unit
*Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	V
*Maximum RMS voltage	V_{RMS}	35	70	145	280	420	V
*Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	V
*Maximum average forward rectified current 0.375" (9.5mm) lead length at $T_A=75^{\circ}\text{C}$	$I_{F(AV)}$	1.0					A
*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					A
*Maximum reverse recovery current (NOTE 1)	I_{RM}	2.0					A
Typical thermal resistance ⁽¹⁾	$R_{\theta JA}$ $R_{\theta JL}$	55 25					$^{\circ}\text{C}/\text{W}$
*Operating junction and storage temperature range	T_J, T_{STG}	-50 to +150					$^{\circ}\text{C}$

Electrical Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	Symbol	1N4933	1N4934	1N4935	1N4936	1N4937	Unit
*Maximum instantaneous forward voltage at 1.0A	V_F	1.2					V
*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 $I_F=1.0\text{A}$, $V_R=30\text{V}$, $di/dt=50\text{A}/\mu\text{s}$, and $I_{rr}=10\% I_{RM}$	t_{rr}	200					ns
Typical junction capacitance at 4.0V, 1MHz	C_J	12					pF

Notes:

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

*JEDEC registered values

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

Fig. 1 — Forward Current Derating Curves

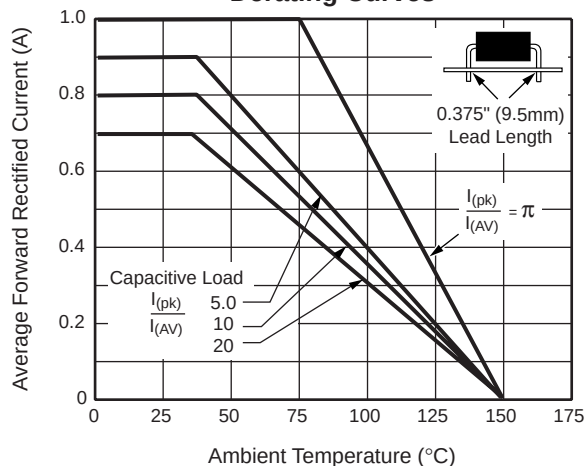


Fig. 2 — Maximum Non-Repetitive Peak Forward Surge Current

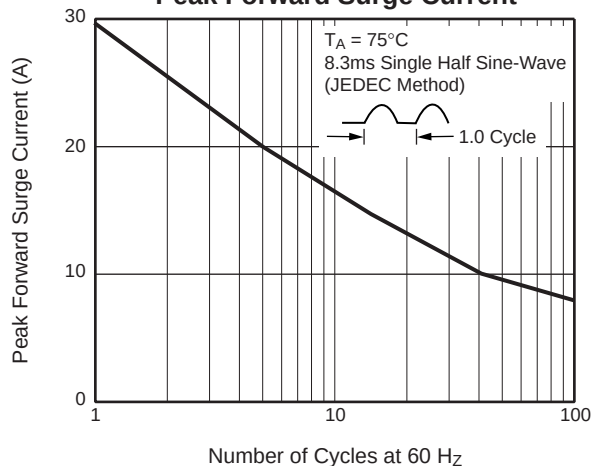


Fig. 3 — Typical Instantaneous Forward Characteristics

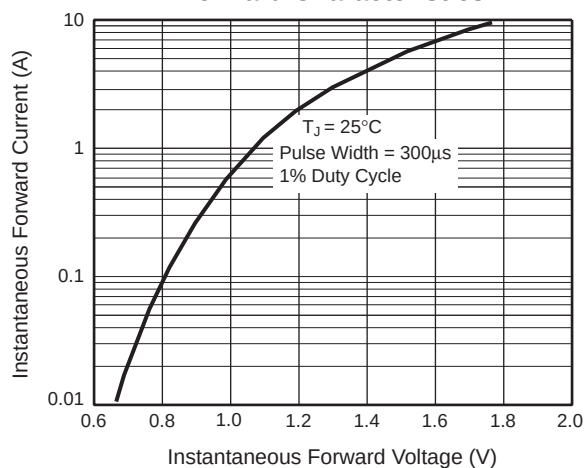


Fig. 4 — Typical Reverse Characteristics

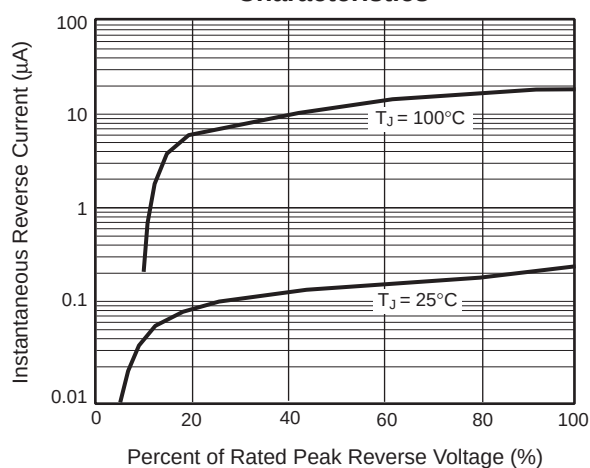


Fig. 5 — Typical Junction Capacitance

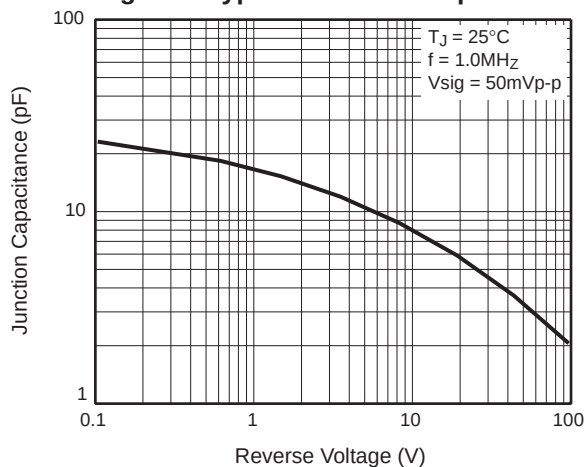


Fig. 6 — Typical Transient Thermal Impedance

