

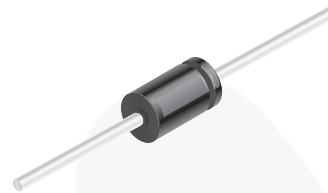


January 2015

1N4934 - 1N4937 Fast Rectifiers

Features

- Low Forward Voltage Drop
- High Surge Current Capability
- High Reliability
- High Current Capability



DO-41

COLOR BAND DENOTES CATHODE

Ordering Information

| Part Number | Top Mark | Package | Packing Method |
|-------------|----------|------------------|----------------|
| 1N4934 | 1N4934 | DO-204AL (DO-41) | Tape and Reel |
| 1N4935 | 1N4935 | DO-204AL (DO-41) | Tape and Reel |
| 1N4936 | 1N4936 | DO-204AL (DO-41) | Tape and Reel |
| 1N4937 | 1N4937 | DO-204AL (DO-41) | Tape and Reel |

Absolute Maximum Ratings

Stresses exceeding the absolute maximum ratings may damage the device. The device may not function or be operable above the recommended operating conditions and stressing the parts to these levels is not recommended. In addition, extended exposure to stresses above the recommended operating conditions may affect device reliability. The absolute maximum ratings are stress ratings only. Values are at $T_A = 25^\circ\text{C}$ unless otherwise noted.

| Symbol | Parameter | Value | | | | Unit |
|-------------|---|-------------|--------|--------|--------|------------------|
| | | 1N4934 | 1N4935 | 1N4936 | 1N4937 | |
| V_{RRM} | Maximum Repetitive Reverse Voltage | 100 | 200 | 400 | 600 | V |
| $I_{F(AV)}$ | Average Rectified Forward Current .375 " Lead Length at $T_A = 50^\circ\text{C}$ | 1.0 | | | | A |
| I_{FSM} | Non-Repetitive Peak Forward Surge Current 8.3 ms Single Half-Sine-Wave | 30 | | | | A |
| T_{STG} | Storage Temperature Range | -50 to +150 | | | | $^\circ\text{C}$ |
| T_J | Operating Junction Temperature | -50 to +150 | | | | $^\circ\text{C}$ |

Thermal Characteristics

Values are at $T_A = 25^\circ\text{C}$ unless otherwise noted.

| Symbol | Parameter | Value | Unit |
|-----------------|---|-------|---------------------------|
| P_D | Power Dissipation | 2.5 | W |
| $R_{\theta JA}$ | Thermal Resistance, Junction-to-Ambient | 50 | $^\circ\text{C}/\text{W}$ |

Electrical Characteristics

Values are at $T_A = 25^\circ\text{C}$ unless otherwise noted.

| Symbol | Parameter | Conditions | Value | | | | Unit |
|----------|--------------------------------|---|--------|--------|--------|--------|---------------|
| | | | 1N4934 | 1N4935 | 1N4936 | 1N4937 | |
| V_F | Forward Voltage | $I_F = 1.0\text{ A}$ | 1.2 | | | | V |
| t_{rr} | Reverse Recovery Time | $I_F = 0.5\text{ A}$, $I_R = 1.0\text{ A}$, $I_{rr} = 0.25\text{ A}$ | 150 | | | | ns |
| I_R | Reverse Current at Rated V_R | $T_A = 25^\circ\text{C}$ | 5.0 | | | | μA |
| | | $T_A = 125^\circ\text{C}$ | 100 | | | | |
| C_T | Total Capacitance | $V_R = 4.0\text{ V}$, $f = 1.0\text{ MHz}$ | 12 | | | | pF |

Typical Performance Characteristics

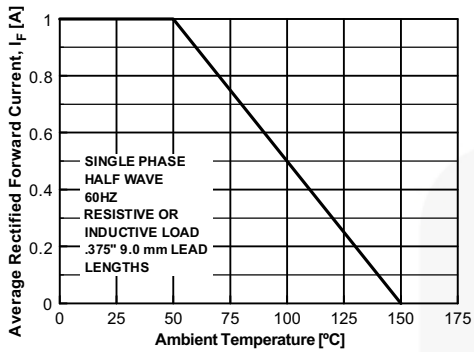


Figure 1. Forward Current Derating Curve

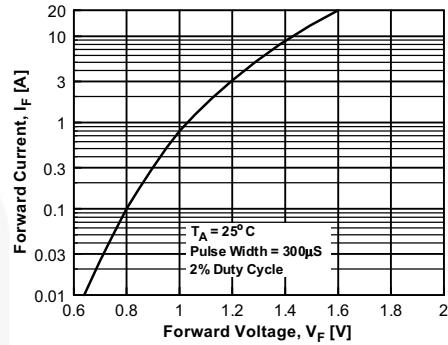


Figure 2. Forward Voltage Characteristics

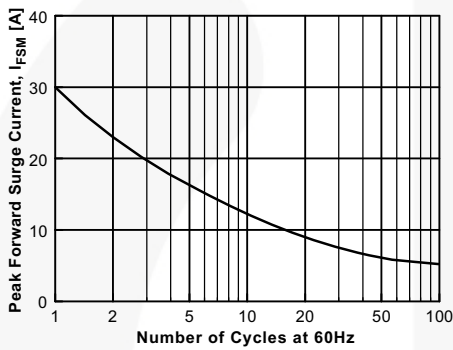


Figure 3. Non-Repetitive Surge Current

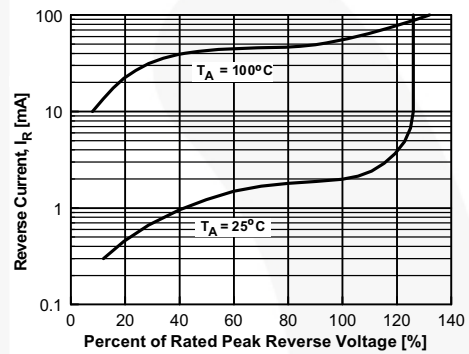


Figure 4. Reverse Current vs. Reverse Voltage

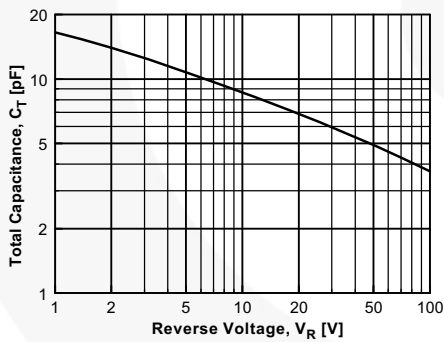
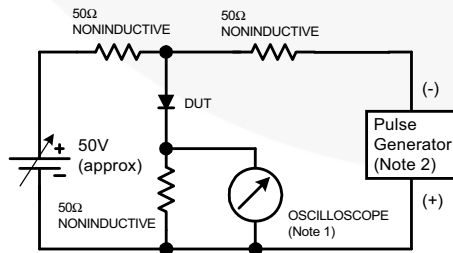


Figure 5. Total Capacitance



- NOTES:
 1. Rise time = 7.0 ns max; Input impedance = 1.0 megaohm 22 pf.
 2. Rise time = 10 ns max; Source impedance = 50 ohms.

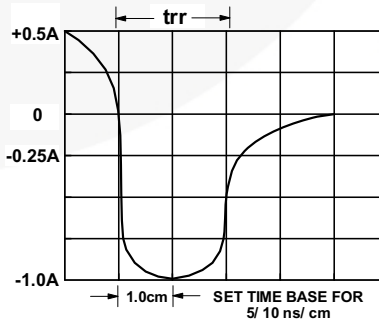
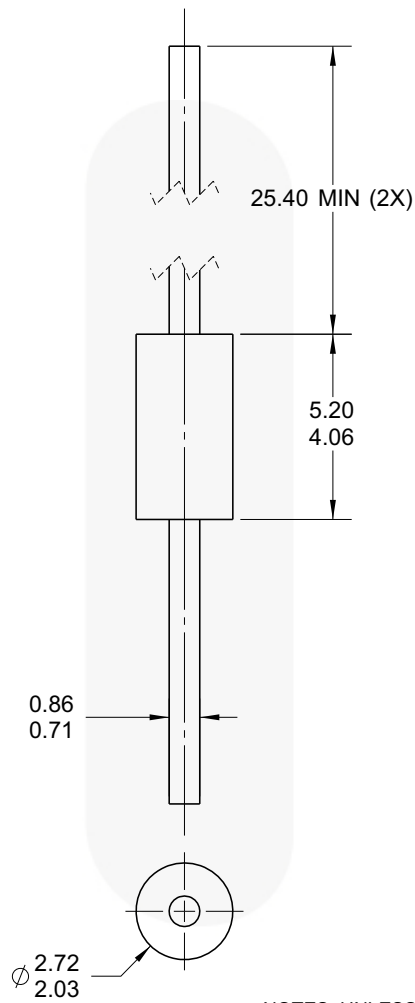


Figure 6. Reverse Recovery Time Characteristic and Test Circuit Diagram

Physical Dimension



NOTES: UNLESS OTHERWISE SPECIFIED

- A) PACKAGE STANDARD REFERENCE: JEDEC DO-204 VARIATION AL.
- B) PACKAGE BODY CAN BE PLASTIC OR HERMETICALLY SEALED GLASS .
- D) ALL DIMENSIONS ARE IN MILLIMETERS.
- E) DRAWING FILE NAME: DO41AREV2






Figure 7. DO-41, AXIAL LEADED, GLASS, JEDEC DO204, VARIATION AL





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Rev. I73