

DO-35 Glass-Encapsulate Diodes

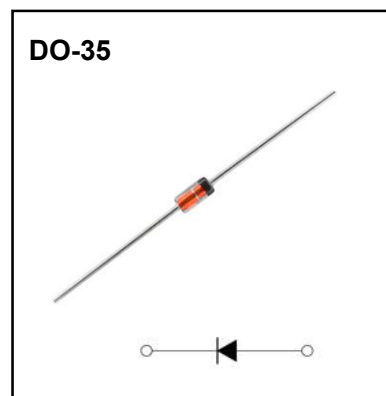
Small Signal Fast Switching Diodes

Features

- V_R 75V
- I_{FAV} 150mA

Applications

- Extreme fast switches



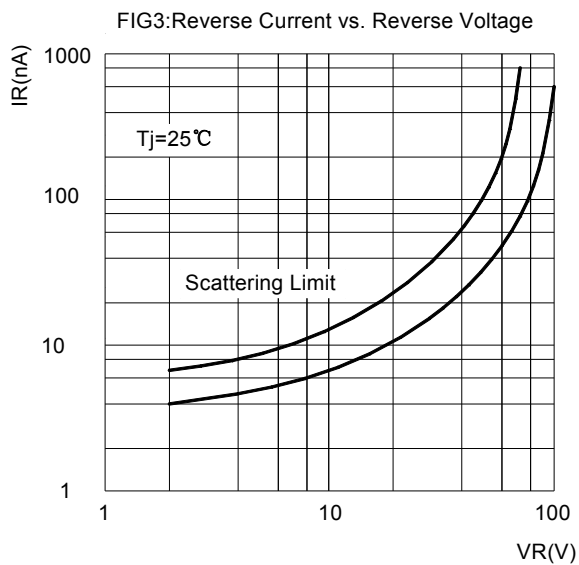
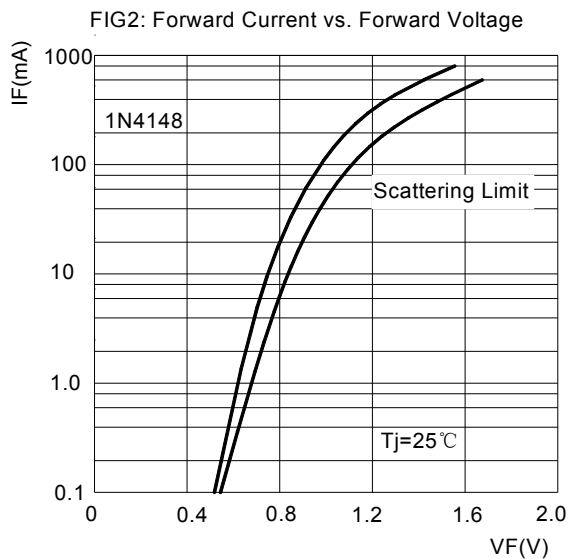
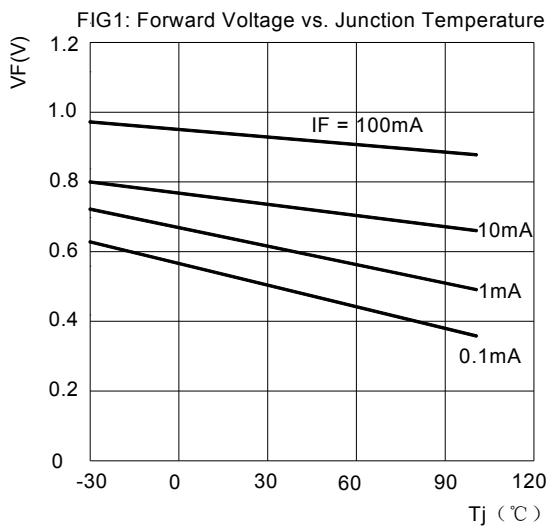
Limiting Values (Absolute Maximum Rating)

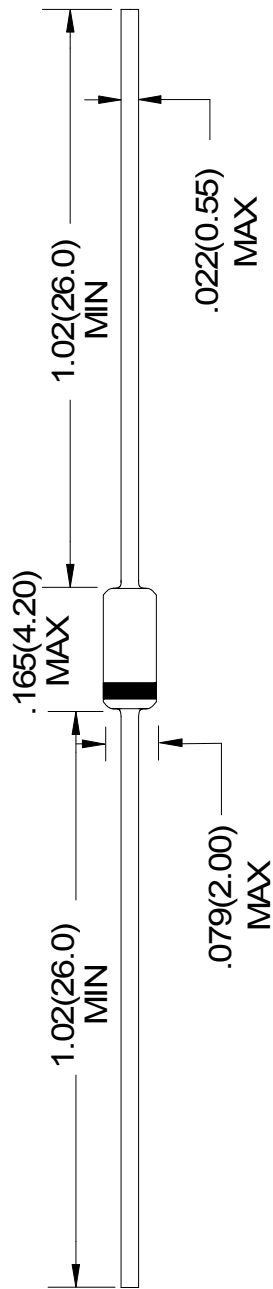
| Item | Symbol | Unit | Conditions | Max |
|---------------------------------|------------|--------------|--|-------------|
| Repetitive peak reverse voltage | V_{RRM} | V | | 100 |
| Reverse voltage | V_R | V | | 75 |
| Peak forward surge current | I_{FSM} | A | $t_p=1\mu s$ | 2 |
| Repetitive peak forward current | I_{FRM} | mA | | 500 |
| Forward continuous current | I_F | mA | | 300 |
| Average forward current | I_{FAV} | mA | $V_R=0$ | 150 |
| Power dissipation | P_{tot} | mW | $L=4mm, T_L=45^\circ C$ | 440 |
| | | | $L=4mm, T_L \leq 25^\circ C$ | 500 |
| Thermal resistance | R_{thJA} | $^\circ C/W$ | junction to ambient air, $L=4mm, T_L=constant$ | 350 |
| Maximum junction temperature | T_j | $^\circ C$ | | 175 |
| Storage temperature range | T_{stg} | $^\circ C$ | | -65 to +175 |

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

| Item | Symbol | Unit | Conditions | Max |
|-----------------------|------------|---------------|--|----------|
| Forward voltage | V_F | mV | $I_F=200\text{mA}$ | 1000 |
| Reverse current | I_R | nA | $V_R=20\text{V}$ | 25 |
| | I_R | μA | $V_R=20\text{V}, T_J=150^\circ\text{C}$ | 50 |
| | I_R | μA | $V_R=75\text{V}$ | 5 |
| Breakdown voltage | $V_{(BR)}$ | V | $I_R=100\mu\text{A}, t_p/T=0.01, t_p=0.3\text{ms}$ | 100(min) |
| Diode capacitance | C_D | pF | $V_R=0, f=1\text{MHz}, V_{HF}=50\text{mV}$ | 4 |
| Reverse recovery time | t_{rr} | ns | $I_F=I_R=10\text{mA}, i_R=1\text{mA}$ | 8 |
| | t_{rr} | ns | $I_F=10\text{mA}, V_R=6\text{V}, i_R=0.1\times I_R, R_L=100\Omega$ | 4 |

Typical Characteristics





Unit: in inches (millimeters)

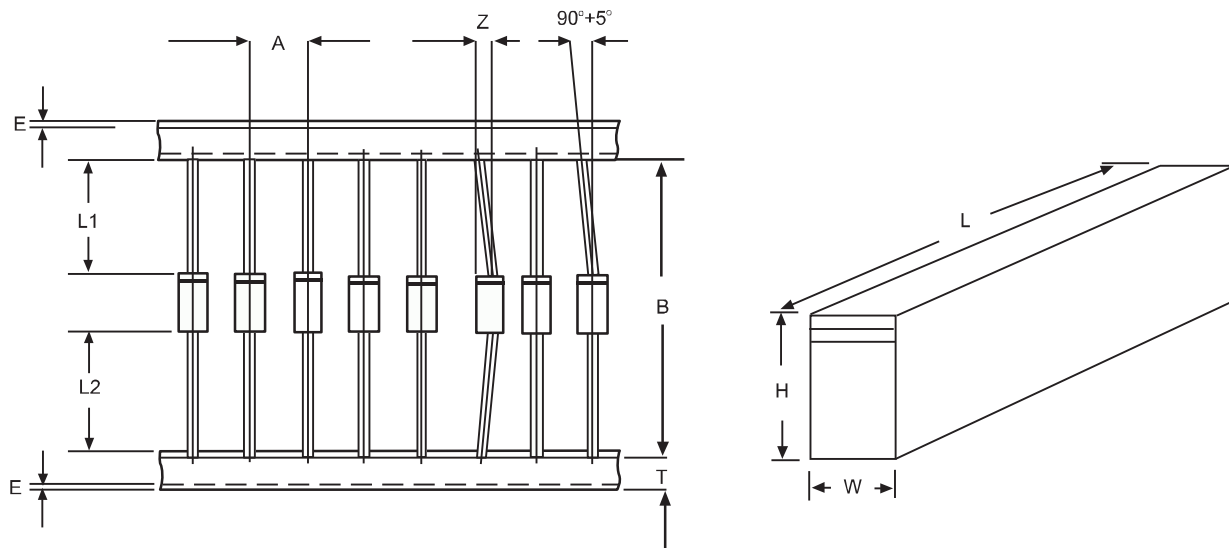
NOTICE

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Ammo Box Packaging Specifications For Axial Lead Rectifiers

Axial lead devices are packed in accordance with EIA standard RS-296-D and specifications given below

| COMPONENT OUTLINE | COMPONENT PITCH A | INNER TAPE PITCH B | CUMULATIVE PITCH TOLERANCE |
|-------------------|----------------------------|-------------------------|----------------------------|
| | $\pm 0.5\text{mm}(.020'')$ | $+0.5\text{mm}(.020'')$ | |
| R-1 | 5.0mm | 26.0mm | 2.0mm/20pitch |
| R-1 | 5.0mm | 52.4mm | 2.0mm/10pitch |
| A-405 | 5.0mm | 26.0mm | 2.0mm/20pitch |
| A-405 | 5.0mm | 52.4mm | 2.0mm/10pitch |
| DO-34/DO-35 | 5.0mm | 26.0mm | 2.0mm/20pitch |
| DO-34/DO-35 | 5.0mm | 52.4mm | 2.0mm/10pitch |
| DO-41 | 5.0mm | 26.0mm | 2.0mm/20pitch |
| DO-41 | 5.0mm | 52.4mm | 2.0mm/10pitch |
| DO-15 | 5.0mm | 52.4mm | 2.0mm/10pitch |
| DO-27 | 10.0mm | 52.4mm | 2.0mm/10pitch |
| R-6 | 10.0mm | 52.4mm | 2.0mm/10pitch |



| ITEM | SYMBOL | SPECIFICATIONS(mm) | SPECIFICATIONS(inch) |
|---------------------|-----------|--------------------|----------------------|
| Component alignment | Z | 1.2max | 0.048max |
| Tape width | T | 6.0 ± 0.4 | 0.236 ± 0.016 |
| Exposed adhesive | E | 0.8max | 0.032max |
| Body eccentricity | $ L1-L2 $ | 1.0max | 0.040max |
| Box length | L | 255.0 ± 5.0 | 10.04 ± 0.197 |
| Box width | W | 78.0 ± 5.0 | 3.07 ± 0.197 |
| Box height | H | 150.0 ± 5.0 | 5.91 ± 0.197 |

NOTE: Each component lead shall be sandwiched between tapes for A minimum of 3.2mm(0.126'')