

■ Features

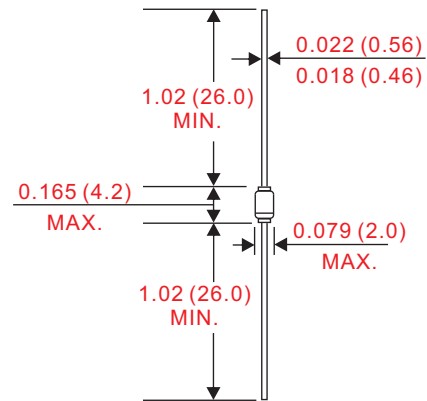
- Fast switching speed.
- Axial lead type devices for through hole design.
- Hermetically sealed glass.
- Silicon epitaxial planar chip structure.
- Lead-free parts meet RoHS requirements

■ Mechanical data

- Case : Glass, DO-35
- Lead : Axial leads, solderable per MIL-STD-202, Method 208 guaranteed
- Polarity : Indicated by cathode band
- Weight : Approximated 0.12 gram

■ Outline

DO-35



Dimensions in inches and (millimeters)

■ Maximum ratings and electrical characteristics

Rating at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

| Parameter | CONDITIONS | Symbol | 1N4148 | UNIT |
|---|------------|----------------|------------|------|
| Non-repetitive peak reverse voltage | | V_{RM} | 100 | V |
| Peak repetitive reverse voltage | | V_{RRM} | 75 | |
| Forward continuous current | | I_{FM} | 300 | mA |
| Average rectified output current | | I_O | 150 | |
| Non-repetitive peak forward surge current | | I_{FEM} | 2000 | |
| Power dissipation | | P_D | 500 | mW |
| Operating and Storage temperature | | T_J, T_{STG} | -55 ~ +175 | °C |

| Parameter | CONDITIONS | Symbol | Min. | Max. | UNIT |
|-----------------------|---|----------|------|------|------|
| Breakdown voltage | $I_R = 100\mu A$ | BV | 100 | | V |
| | $I_R = 5\mu A$ | | 75 | | |
| Forward voltage | $I_F = 10\text{ mA}$ | V_F | | 1.0 | V |
| Reverse current | $V_R = 20\text{ V}$ | I_R | | 25 | nA |
| | $V_R = 75\text{ V}$ | | | 5.0 | uA |
| Diode capacitance | $V_R = 0\text{ V}, f = 1\text{ MHz}$ | C_D | | 4.0 | pF |
| Reverse recovery time | $I_F = 10\text{ mA}, I_R = 1.0\text{ mA}, R_L = 100_{\Omega}, I_{RR} = 1\text{ mA}$ | t_{rr} | | 4 | ns |

■ Rating and characteristic curves

FIG.1-TYPICAL FORWARD CHARACTERISTICS

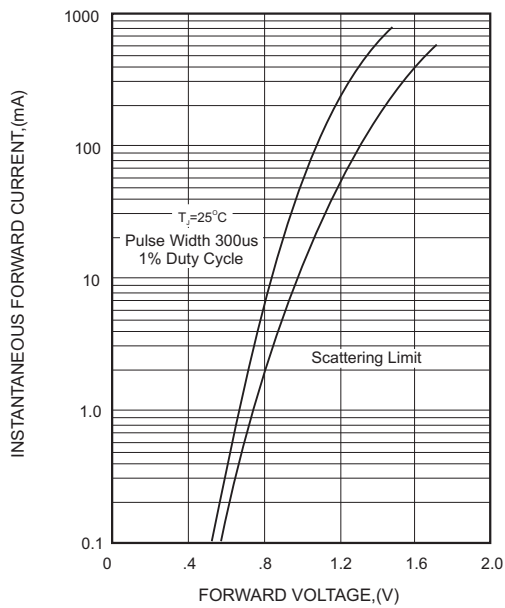


FIG.3 - TYPICAL REVERSE CHARACTERISTICS

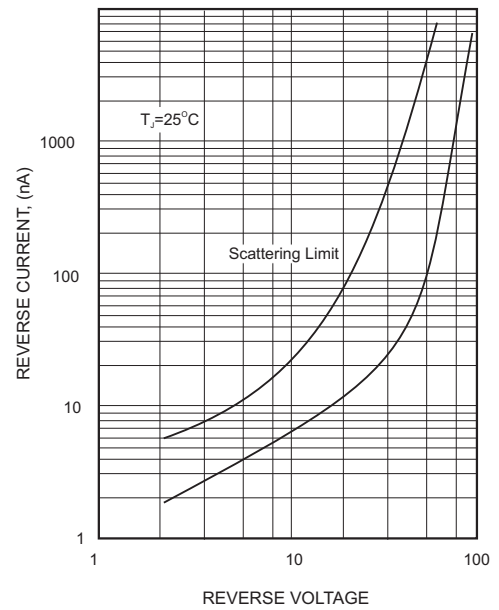


FIG.2 - TYPICAL DIODE CAPACITANCE

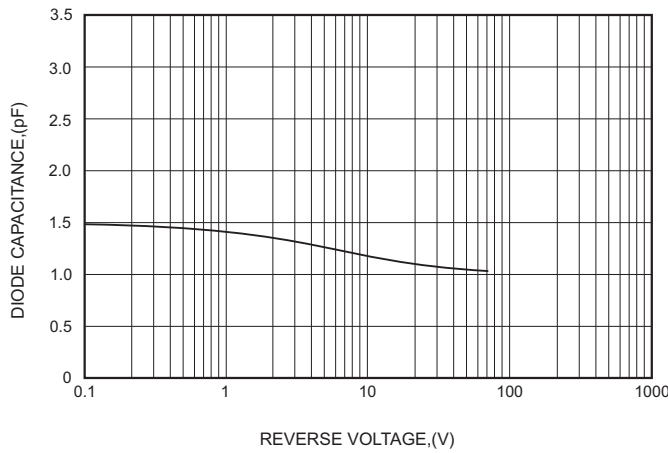
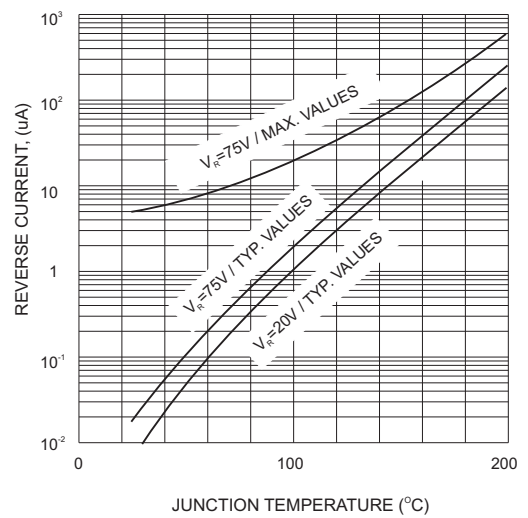


FIG.4 - REVERSE CURRENT VS JUNCTION TEMPERATURE



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