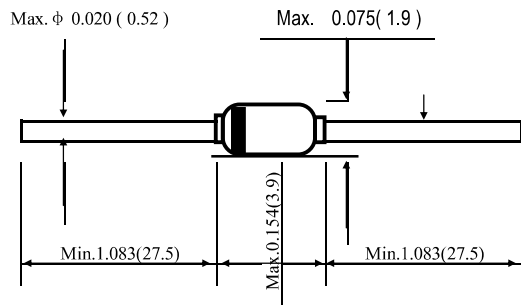


外形尺寸和印记 Outline Dimensions and Mark
DO - 35(GLASS)


inch (mm)

Features

- Silicon epitaxial planar diode
- High speed switching diode
- 500mW power dissipation

Mechanical Data

- Cases: Min-MELF glass case
- Polarity: Color band denotes cathode
- Weight: Approx. 0.05 grams

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified.

Maximum Ratings

| Type Number | | 1N4148 | Units |
|---|-----------|--------------------|-------|
| DC Block Voltage | V_R | 75 | V |
| Non-Peak Reverse Voltage | V_{RM} | 100 | V |
| Average Forward Rectified Current Half Wave Rectification with Resist load | I_O | 150 | mA |
| Forward Surge Current at $t < 1s$ and $T_j < 25^\circ C$ | I_{FSM} | 500 | mA |
| Power Classification at T_j | P_{tot} | 500 ⁽¹⁾ | mW |
| Junction Temperature | T_J | 175 | °C |
| Storage Temperature Range | T_{STG} | -65 to +175 | °C |

NOTE: (1) Valid provided that

Electrical Characteristics

| | | Min | Typ | Max | Units |
|--|-----------------|------|-----|-----|-------|
| Forward Voltage at $I_F = 10mA$ | V_F | — | — | 1 | |
| Leakage Current at $V_R = 20V$ at $V_R = 75V$ at $V_R = 20V, T_j = 150^\circ C$ | I_R | — | — | 25 | nA |
| | I_R | — | — | 5 | uA |
| | I_R | — | — | 50 | uA |
| Capacitance at $V_F = V_R = 0V$ | C_j | — | — | 4 | pF |
| Voltage Rise when Switching ON loaded with 50mA pulse $t_p = 0.1\mu s$ Rise Time $< 30ns$ $I_p = 5$ to 100Hz | V_{tt} | — | — | 2.5 | V |
| Reverse Recovery Time from $I_F = 10mA$ $V_R = V, R_L = 100\Omega$ at $I_R = 1mA$ | t_{rr} | — | — | 4 | ns |
| Thermal Resistance Junction to Ambient | $R_{\theta JA}$ | — | — | 350 | K/W |
| Rectification Efficiency at 100MHz, $V_{er} < 2V$ | η_V | 0.45 | — | — | — |

NOTE: (1) Valid provided that electrodes are kept at ambient temperature.

■ 特性曲线 (典型) Characteristics(Typical)

FIG.1-FORWARD CHARACTERISTICS CURVE

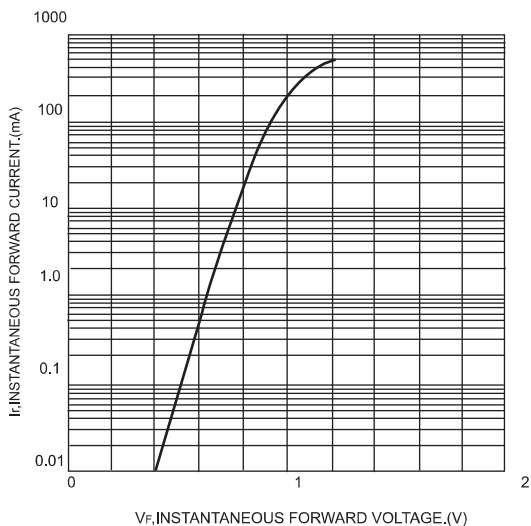


FIG.2-FORWARD CHARACTERISTICS CURVE

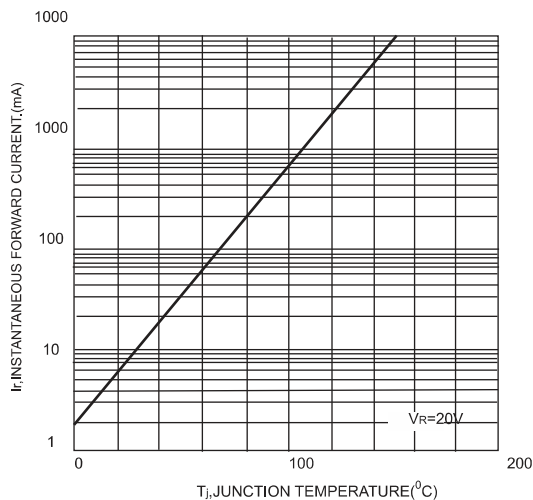


FIG.3-ADMISSIBLE POWER DISSIPATION VS AMBIENT TEMPERATURE

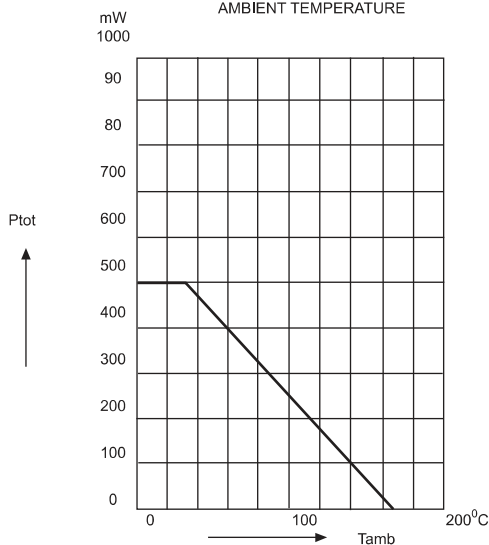


FIG.4-RECTIFICATION EFFICIENCY MEASUREMENT CIRCUIT

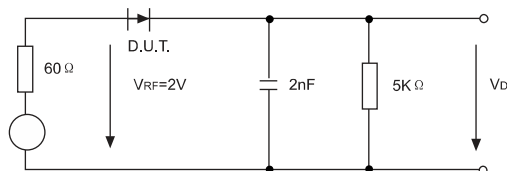


FIG.5- RELATIVE CAPACITANCE VERSUS VOLTAGE

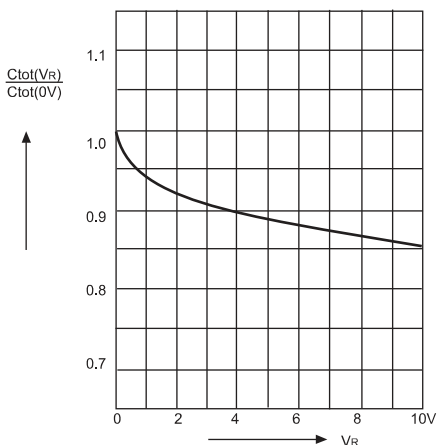


FIG.6-LEAKAGE CURRENT VERSUS JUNCTION TEMPERATURE

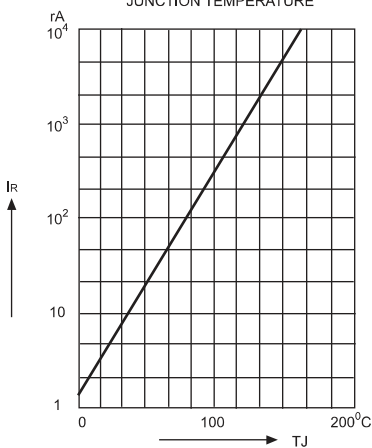


FIG.7-DYNAMIC FORWARD RESISTANCE VERSUS FORWARD CURRENT

