

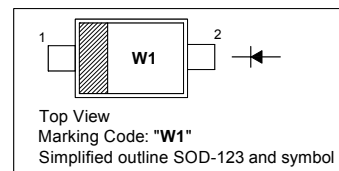
1N4448W

Silicon Epitaxial Planar Switching Diode

Fast Switching Diode

PINNING

| PIN | DESCRIPTION |
|-----|-------------|
| 1 | Cathode |
| 2 | Anode |



Absolute Maximum Ratings ($T_a = 25\text{ }^\circ\text{C}$)

| Parameter | Symbol | Value | Unit |
|--|-------------|---------------|------------------|
| Peak Reverse Voltage | V_{RM} | 100 | V |
| Reverse Voltage | V_R | 80 | V |
| Average Rectified Forward Current | $I_{F(AV)}$ | 150 | mA |
| Forward Continuous Current | I_{FM} | 300 | mA |
| Non-Repetitive Peak Forward Surge Current (at $t = 1\text{ }\mu\text{s}$) | I_{FSM} | 4 | A |
| Power Dissipation | P_d | 400 | mW |
| Junction Temperature | T_j | 150 | $^\circ\text{C}$ |
| Storage Temperature Range | T_{stg} | - 65 to + 150 | $^\circ\text{C}$ |

Characteristics at $T_a = 25\text{ }^\circ\text{C}$

| Parameter | Symbol | Min. | Max. | Unit |
|---|-------------|---------------------|----------------------------|--|
| Forward Voltage at $I_F = 5\text{ mA}$ at $I_F = 10\text{ mA}$ at $I_F = 100\text{ mA}$ at $I_F = 150\text{ mA}$ | V_F | 0.62 - - - | 0.72 0.855 1 1.25 | V |
| Reverse Leakage Current at $V_R = 80\text{ V}$ at $V_R = 20\text{ V}$ at $V_R = 75\text{ V}$, $T_J = 150\text{ }^\circ\text{C}$ at $V_R = 25\text{ V}$, $T_J = 150\text{ }^\circ\text{C}$ | I_R | - - - - | 100 25 50 30 | nA nA μA μA |
| Reverse Breakdown Voltage at $I_R = 100\text{ }\mu\text{A}$ | $V_{(BR)R}$ | 80 | - | V |
| Total Capacitance at $V_R = 0.5\text{ V}$, $f = 1\text{ MHz}$ | C_{tot} | - | 4 | pF |
| Reverse Recovery Time at $I_F = I_R = 10\text{ mA}$, $I_{rr} = 0.1 \times I_R$, $R_L = 100\text{ }\Omega$ | t_{rr} | - | 4 | ns |

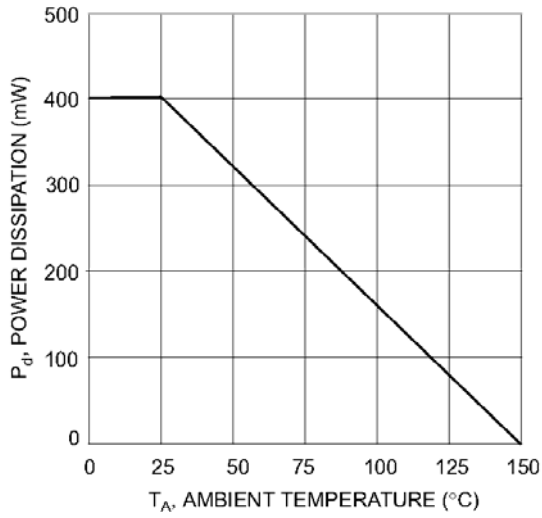


Fig. 1 Power Derating Curve

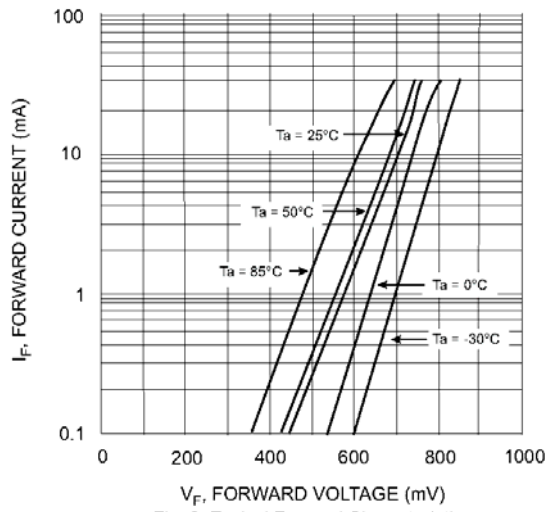


Fig. 2 Typical Forward Characteristics

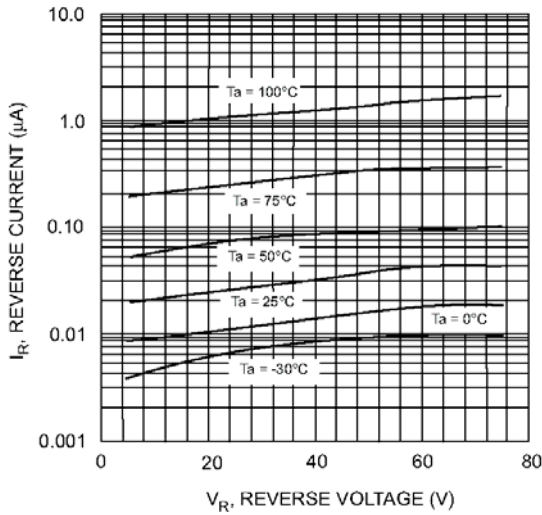


Fig. 3 Typical Reverse Characteristics

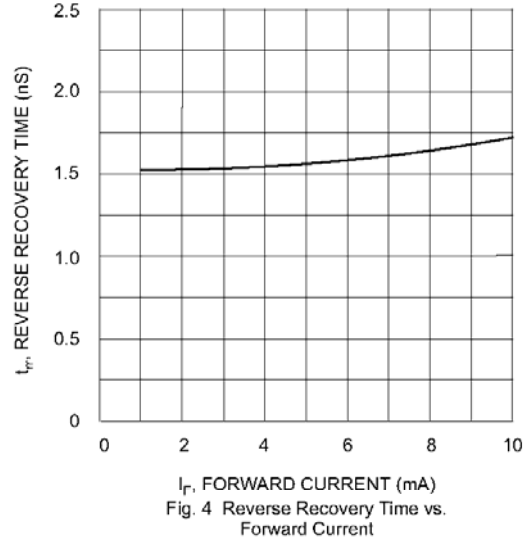


Fig. 4 Reverse Recovery Time vs. Forward Current

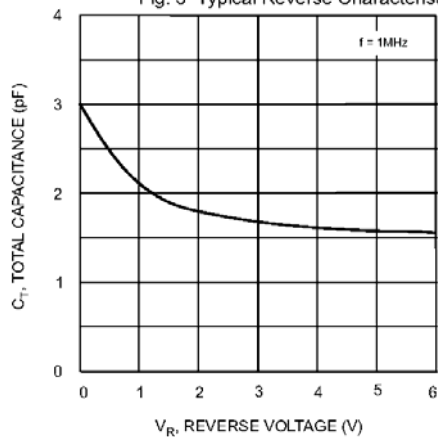


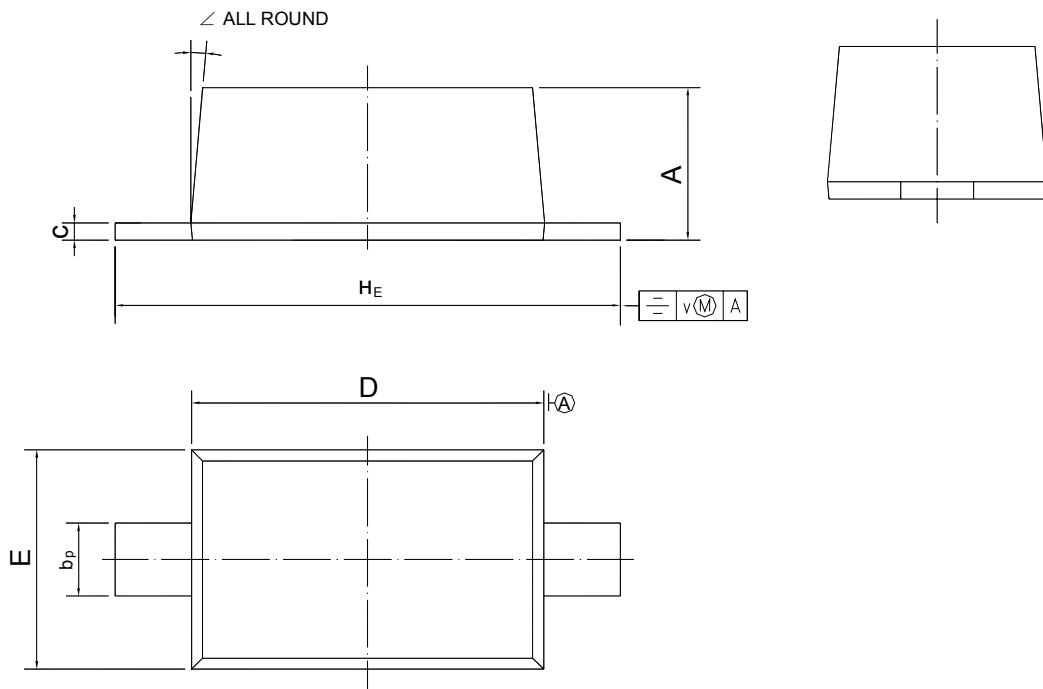
Fig. 5 Total Capacitance vs. Reverse Voltage

1N4448W

PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

SOD-123



| UNIT | A | b_p | c | D | E | H_E | v | \angle |
|------|--------------|------------|----------------|------------|--------------|------------|-----|----------|
| mm | 1.15 1.05 | 0.6 0.5 | 0.135 0.100 | 2.7 2.6 | 1.65 1.55 | 3.9 3.7 | 0.2 | 5° |