

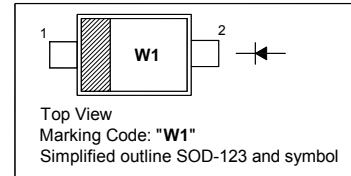
1N4448W

Silicon Epitaxial Planar Switching Diode

Fast Switching Diode

PINNING

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

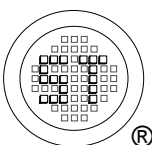


Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

| 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 $t = 1 \mu\text{s}$) | 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 $T_a = 25^\circ\text{C}$

| 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 $V_R = 75 \text{ V}, T_J = 150^\circ\text{C}$ at $V_R = 25 \text{ V}, T_J = 150^\circ\text{C}$ | I_R | - - - - | 100 25 50 30 | nA nA μA μA |
| Reverse Breakdown Voltage at $I_R = 100 \mu\text{A}$ | $V_{(BR)R}$ | 80 | - | V |
| Total Capacitance at $V_R = 0.5 \text{ V}, f = 1 \text{ MHz}$ | C_{tot} | - | 4 | pF |
| Reverse Recovery Time at $I_F = I_R = 10 \text{ mA}, I_{rr} = 0.1 \times I_R, R_L = 100 \Omega$ | t_{rr} | - | 4 | ns |



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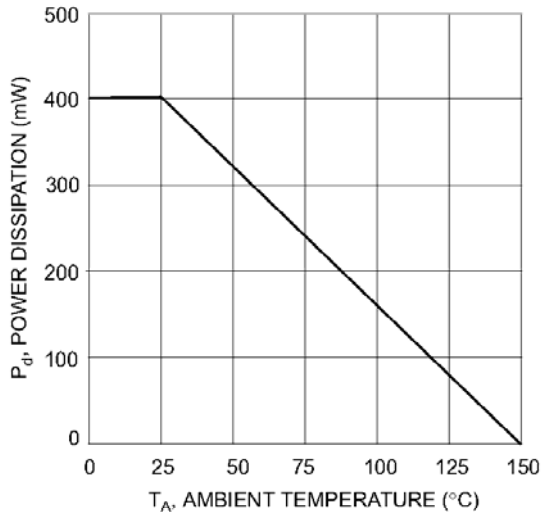


Fig. 1 Power Derating Curve

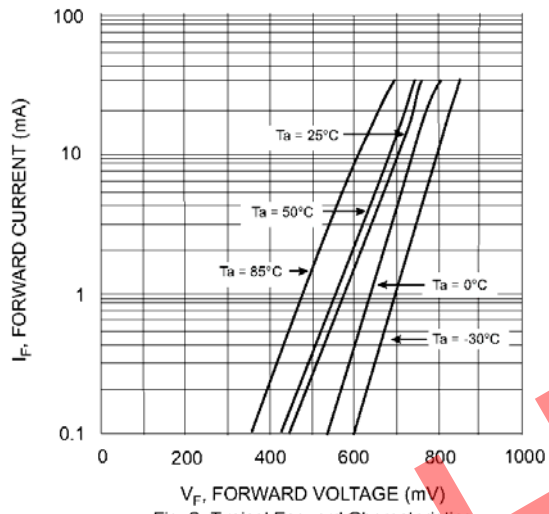


Fig. 2 Typical Forward Characteristics

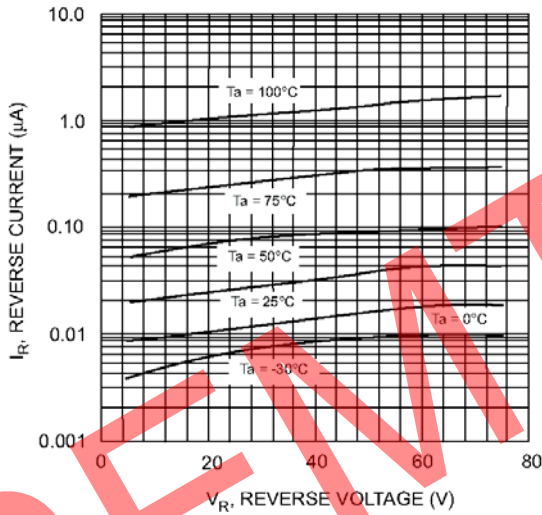


Fig. 3 Typical Reverse Characteristics



Fig. 4 Reverse Recovery Time vs. Forward Current

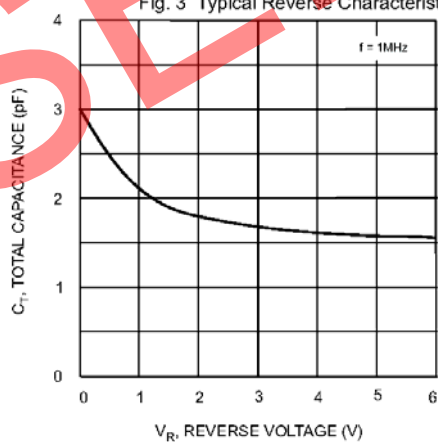
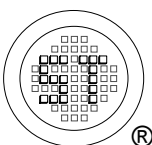


Fig. 5 Total Capacitance vs. Reverse Voltage



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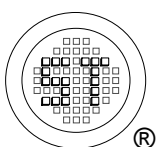
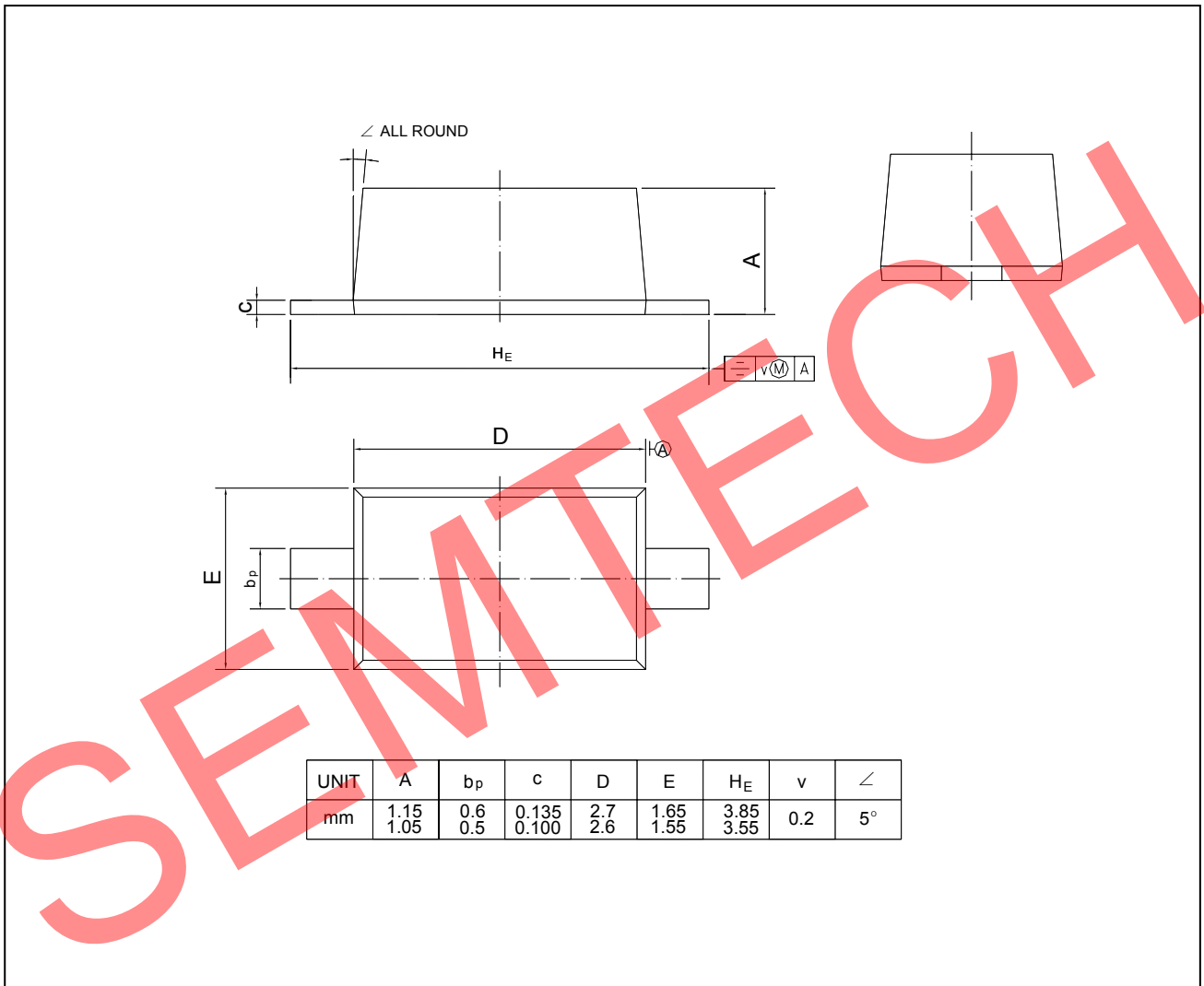


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PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

SOD-123



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