

1SS5004WS

Silicon Epitaxial Planar Diode

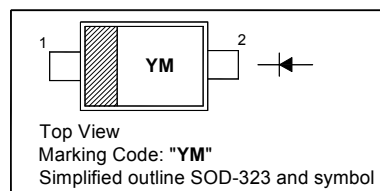
High Voltage Switching Diode

Features

- Fast switching speed
- High conductance
- High reverse breakdown voltage rating

PINNING

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



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

| Parameter | Symbol | Value | Unit |
|--------------------------------------------------|-----------|---------------|------------------|
| Repetitive Peak Reverse Voltage | V_{RRM} | 400 | V |
| Reverse Voltage | V_R | 350 | V |
| Continuous Forward Current | I_F | 225 | mA |
| Repetitive Peak Forward Current | I_{FRM} | 625 | mA |
| Non-Repetitive Peak Forward Surge Current (1 ms) | I_{FSM} | 2 | A |
| Power Dissipation | P_d | 350 | 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 $I_F = 20\text{ mA}$ at $I_F = 100\text{ mA}$ at $I_F = 200\text{ mA}$ | V_F | - - - | 0.87 1 1.25 | V |
| Reverse Current at $V_R = 240\text{ V}$ | I_R | - | 100 | nA |
| Reverse Breakdown Voltage at $I_R = 150\text{ }\mu\text{A}$ | $V_{(BR)R}$ | 400 | - | V |
| Total Capacitance at $V_R = 0$, $f = 1\text{ MHz}$ | C_T | - | 5 | pF |
| Reverse Recovery Time at $I_F = I_R = 30\text{ mA}$, $i_{rr} = 3\text{ mA}$, $R_L = 100\text{ }\Omega$ | t_{rr} | - | 100 | ns |

1SS5004WS

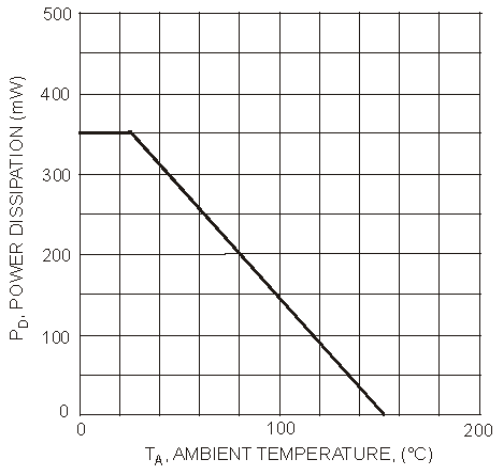


Fig. 1 Power Derating Curve, Total Package

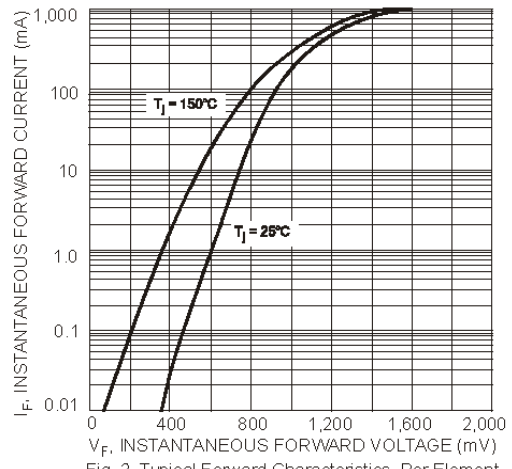


Fig. 2 Typical Forward Characteristics, Per Element

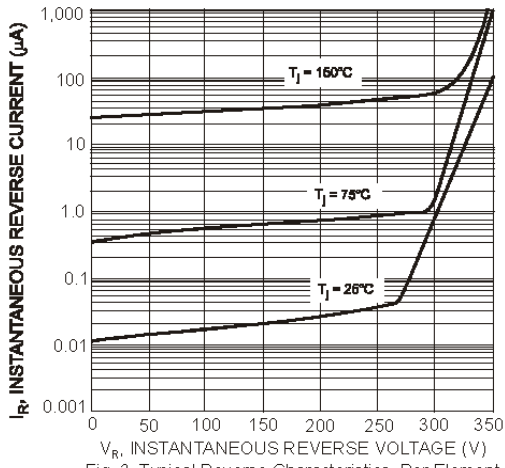


Fig. 3 Typical Reverse Characteristics, Per Element

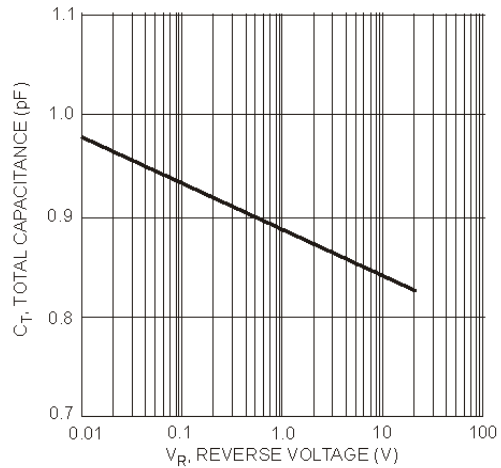


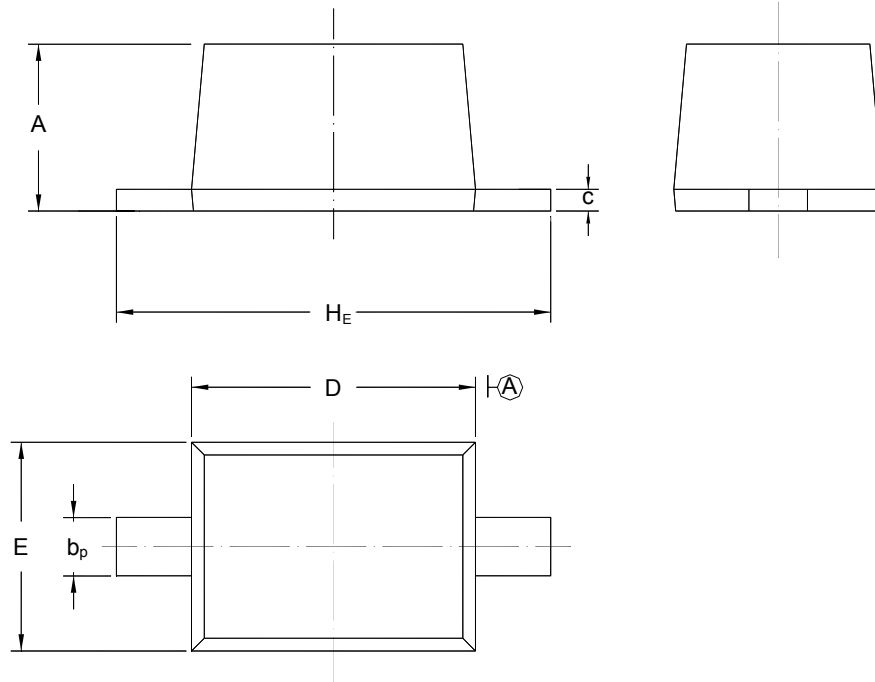
Fig. 4 Total Capacitance vs. Reverse Voltage, Per Element

1SS5004WS

PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

SOD-323



| UNIT | A | b _p | C | D | E | H _E |
|------|--------------|----------------|--------------|--------------|--------------|----------------|
| mm | 1.10 0.80 | 0.40 0.25 | 0.15 0.10 | 1.80 1.60 | 1.35 1.15 | 2.80 2.30 |