

1PS50-03WS

General purpose PIN diode

Features

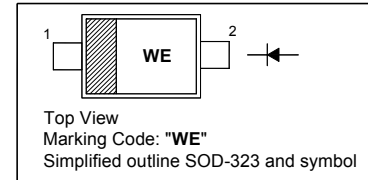
- Low forward resistance
- Low capacitance

Applications

- General RF applications

PINNING

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

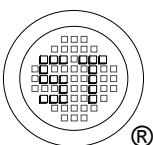


Absolute Maximum Ratings ($T_a = 25\text{ }^\circ\text{C}$)

| Parameter | Symbol | Value | Unit |
|--|-----------|---------------|------------------|
| Reverse Voltage | V_R | 50 | V |
| Continuous Forward Current | I_F | 50 | mA |
| Total Power Dissipation ($T_S = 90\text{ }^\circ\text{C}$) | P_{tot} | 500 | mW |
| Junction Temperature | T_j | 150 | $^\circ\text{C}$ |
| Storage Temperature Range | T_{stg} | - 55 to + 150 | $^\circ\text{C}$ |

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

| Parameter | Symbol | Min. | Max. | Unit |
|--|--------|------|---------------|----------|
| Forward Voltage at $I_F = 50\text{ mA}$ | V_F | - | 1.1 | V |
| Reverse Current at $V_R = 50\text{ V}$ | I_R | - | 100 | nA |
| Reverse Voltage at $I_R = 10\text{ }\mu\text{A}$ | V_R | 50 | - | V |
| Diode Capacitance at $V_R = 1\text{ V}$, $f = 1\text{ MHz}$ at $V_R = 5\text{ V}$, $f = 1\text{ MHz}$ | C_d | - | 0.55 0.35 | pF |
| Forward Resistance at $I_F = 0.5\text{ mA}$, $f = 100\text{ MHz}$ at $I_F = 1\text{ mA}$, $f = 100\text{ MHz}$ at $I_F = 10\text{ mA}$, $f = 100\text{ MHz}$ | r_D | - | 40 25 5 | Ω |

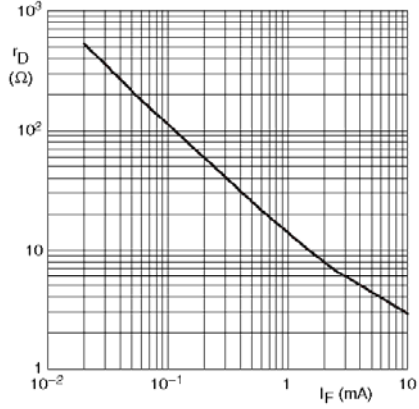


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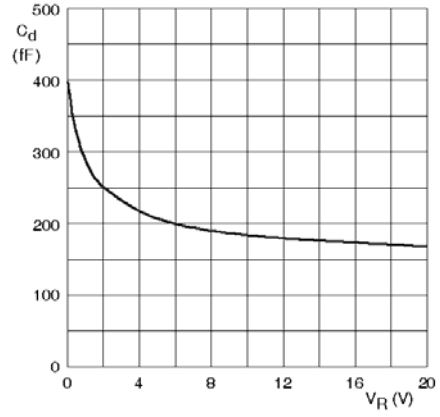
Dated : 06/01/2009

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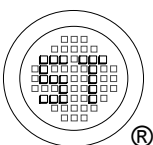
f = 100 MHz; $T_j = 25^\circ\text{C}$.

Forward resistance as a function of forward current; typical values.



f = 1 MHz; $T_j = 25^\circ\text{C}$.

Diode capacitance as a function of reverse voltage; typical values.



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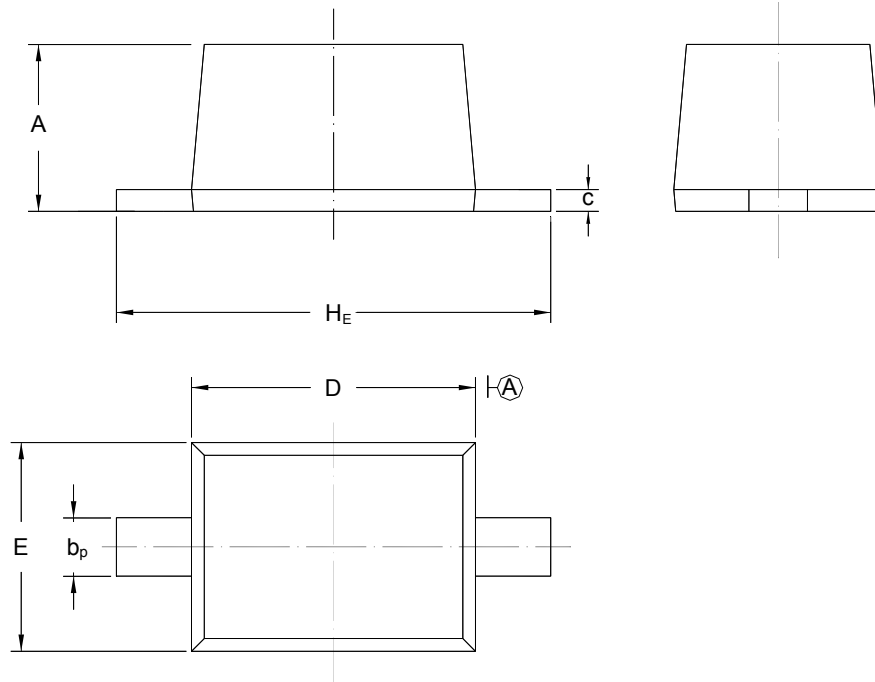
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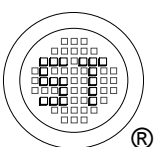
PACKAGE OUTLINE

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 |



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