## SDB412WS

SILICON EPITAXIAL PLANAR SCHOTTKY BARRIER DIODE

## Features

- Small surface mounting type
- Low forward voltage
- High reliability


## Applications

- Low power rectification

PINNING

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



Top View
Marking Code: "PR"
Simplified outline SOD-323 and symbol

Absolute Maximum Ratings ( $\mathrm{T}_{\mathrm{a}}=25^{\circ} \mathrm{C}$ )

| Parameter | Symbol | Value | Unit |
| :--- | :---: | :---: | :---: |
| Peak Reverse Voltage | $\mathrm{V}_{\mathrm{RM}}$ | 40 | V |
| Reverse Voltage | $\mathrm{V}_{\mathrm{R}}$ | 20 | V |
| Average Forward Current | $\mathrm{I}_{\mathrm{O}}$ | 0.5 | A |
| Peak Forward Surge Current | $\mathrm{I}_{\mathrm{FSM}}$ | 3 | A |
| Junction Temperature | $\mathrm{T}_{\mathrm{j}}$ | 125 | ${ }^{\circ} \mathrm{C}$ |
| Storage Temperature Range | $\mathrm{T}_{\mathrm{s}}$ | -40 to +125 | ${ }^{\circ} \mathrm{C}$ |

Characteristics at $\mathrm{T}_{\mathrm{a}}=25^{\circ} \mathrm{C}$

| Parameter | Symbol | Typ. | Max. | Unit |
| :--- | :---: | :---: | :---: | :---: |
| Forward Voltage <br> at $I_{F}=10 \mathrm{~mA}$ <br> at $\mathrm{I}_{\mathrm{F}}=500 \mathrm{~mA}$ | $\mathrm{~V}_{\mathrm{F}}$ | - | 0.3 | V |
| Reverse Current <br> at $\mathrm{V}_{\mathrm{R}}=10 \mathrm{~V}$ <br> at $\mathrm{V}_{\mathrm{R}}=40 \mathrm{~V}$ | $\mathrm{I}_{\mathrm{R}}$ | - | 0.5 |  |
| Total Capacitance <br> at $\mathrm{V}_{\mathrm{R}}=10 \mathrm{~V}, \mathrm{f}=1 \mathrm{MHz}$ | $\mathrm{C}_{\mathrm{T}}$ | 20 | 30 | $\mu \mathrm{~A}$ |



$\mathrm{C}_{\mathrm{T}}-\mathrm{V}_{\mathrm{R}}$


## PACKAGE OUTLINE



| UNIT | A | $\mathrm{b}_{\mathrm{p}}$ | C | D | E | $\mathrm{H}_{\mathrm{E}}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| mm | 1.10 | 0.40 | 0.15 | 1.80 | 1.35 | 2.80 |
|  | 0.80 | 0.25 | 0.00 | 1.60 | 1.15 | 2.30 |

