## 1SS511WS

## SWITCHING DIODE

## Features

- Ultra high speed switching application
- Low forward voltage
- Fast reverse recovery time
- Small total capacitance

PINNING

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


| W2 |
| :--- | :--- |
| Top View |
| Marking Code: "W2" |
| Simplified outline SOD-323 and symbol |

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

| Parameter | Symbol | Value | Unit |
| :--- | :---: | :---: | :---: |
| Reverse Voltage | $\mathrm{V}_{\mathrm{R}}$ | 80 | V |
| Peak Reverse Voltage | $\mathrm{V}_{\mathrm{RM}}$ | 85 | V |
| Average Forward Current | $\mathrm{I}_{\mathrm{O}}$ | 100 | mA |
| Peak Forward Current | $\mathrm{I}_{\mathrm{FM}}$ | 300 | mA |
| Surge Forward Current (10 ms) | $\mathrm{I}_{\text {FSM }}$ | 2 | A |
| Power Dissipation | $\mathrm{P}_{\text {tot }}$ | 150 | mW |
| Junction Temperature | $\mathrm{T}_{\mathrm{j}}$ | 150 | ${ }^{\circ} \mathrm{C}$ |
| Storage Temperature Range | $\mathrm{T}_{\text {stg }}$ | -55 to +150 | ${ }^{\circ} \mathrm{C}$ |

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

| Parameter | Symbol | Max. | Unit |
| :---: | :---: | :---: | :---: |
| Forward Voltage <br> at $\mathrm{I}_{\mathrm{F}}=100 \mathrm{~mA}$ | $\mathrm{~V}_{\mathrm{F}}$ | 1.2 | V |
| Reverse Current <br> at $\mathrm{V}_{\mathrm{R}}=80 \mathrm{~V}$ | $\mathrm{I}_{\mathrm{R}}$ | 0.5 | $\mu \mathrm{~A}$ |
| Total Capacitance <br> at $\mathrm{V}_{\mathrm{R}}=0 \mathrm{~V}, \mathrm{f}=1 \mathrm{MHz}$ | $\mathrm{C}_{\mathrm{tot}}$ | 4 | pF |
| Reverse Recovery Time <br> at $\mathrm{I}_{\mathrm{F}}=\mathrm{I}_{\mathrm{R}}=10 \mathrm{~mA}, \mathrm{I}_{\mathrm{rr}}=0.1 \times \mathrm{I}_{\mathrm{R}}, \mathrm{R}_{\mathrm{L}}=100 \Omega$ | $\mathrm{t}_{\mathrm{rr}}$ | 4 | ns |

Fig. $1 I_{F}-V_{F}$


Fig. $3 \mathrm{C}_{\mathrm{T}}-V_{\mathrm{R}}$


Fig. $2 \mathrm{I}_{\mathrm{R}}-\mathrm{V}_{\mathrm{R}}$


Fig. 4 trr- $\mathrm{I}_{\mathrm{F}}$

 BS-OHSOS 18001: 20077
Certificato No. 7116

## PACKAGE OUTLINE

Plastic surface mounted package; 2 leads


| UNIT | A | $\mathrm{b}_{\rho}$ | 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 |



