## 1N728WS

## SILICON EPITAXIAL PLANAR SCHOTTKY BARRIER DIODE

For super-high speed switching and wave detection circuit applications

PINNING

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

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

| Parameter | Symbol | Value | Unit |
| :--- | :---: | :---: | :---: |
| Peak Reverse Voltage | $\mathrm{V}_{\mathrm{RM}}$ | 30 | V |
| Reverse Voltage | $\mathrm{V}_{\mathrm{R}}$ | 30 | V |
| Forward Current | $\mathrm{I}_{\mathrm{F}}$ | 30 | mA |
| Peak Forward Current | $\mathrm{I}_{\mathrm{FM}}$ | 150 | mA |
| Junction Temperature | $\mathrm{T}_{\mathrm{j}}$ | 125 | ${ }^{\circ} \mathrm{C}$ |
| Storage Temperature Range | $\mathrm{T}_{\mathrm{s}}$ | -55 to +125 | ${ }^{\circ} \mathrm{C}$ |

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

| Parameter | Symbol | Typ. | Max. | Unit |
| :--- | :---: | :---: | :---: | :---: |
| Forward Voltage <br> at $I_{F}=1 \mathrm{~mA}$ <br> at $\mathrm{I}_{\mathrm{F}}=30 \mathrm{~mA}$ | $\mathrm{~V}_{\mathrm{F}}$ | - | 0.4 | V |
| Reverse Current <br> at $\mathrm{V}_{\mathrm{R}}=30 \mathrm{~V}$ | $\mathrm{I}_{\mathrm{R}}$ | - | 0.3 | $\mu \mathrm{~A}$ |
| Terminal Capacitance <br> at $\mathrm{V}_{\mathrm{R}}=1 \mathrm{~V}, \mathrm{f}=1 \mathrm{MHz}$ | $\mathrm{C}_{\mathrm{T}}$ | 1.5 | - | pF |
| Reverse Recovery Time <br> at $\mathrm{I}_{\mathrm{F}}=\mathrm{I}_{\mathrm{R}}=10 \mathrm{~mA}, \mathrm{I}_{\mathrm{rr}}=1 \mathrm{~mA}, \mathrm{R}_{\mathrm{L}}=100 \Omega$ | $\mathrm{t}_{\mathrm{rr}}$ | 1 | - | ns |
| Detection Efficiency <br> at $\mathrm{V}_{\text {in }}=3 \mathrm{~V}_{\text {(peak) }}, \mathrm{f}=30 \mathrm{MHz}, \mathrm{R}_{\mathrm{L}}=3.9 \mathrm{~K} \Omega, \mathrm{C}_{\mathrm{L}}=10 \mathrm{pF}$ | $\mathrm{\eta}$ | 65 | - | $\%$ |







## PACKAGE OUTLINE



| 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 |

