1N914W Silicon Epitaxial Planar Switching Diode

PINNING

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



Absolute Maximum Ratings ( $\mathrm{T}_{\mathrm{a}}=\mathbf{2 5}{ }^{\circ} \mathrm{C}$ )

| Parameter | Symbol | Value | Unit |
| :---: | :---: | :---: | :---: |
| Repetitive Reverse Voltage | VRRM | 100 | V |
| Average Rectified Forward Current | If (AV) | 200 | mA |
| Non-repetitive Peak Forward Surge Current $\quad \begin{array}{ll}\text { at } t=1 \mathrm{~s} \\ \text { at } t=1 \mu \mathrm{~s}\end{array}$ | IFSM | $\begin{aligned} & 1 \\ & 2 \\ & \hline \end{aligned}$ | A |
| Power Dissipation | $\mathrm{P}_{\text {tot }}$ | 400 | mW |
| Thermal Resistance from Junction to Ambient Air | Rөja | 312 | 。C/W |
| Junction Temperature | $\mathrm{T}_{\mathrm{j}}$ | 150 | ${ }^{\circ} \mathrm{C}$ |
| Storage Temperature Range | $\mathrm{T}_{\text {stg }}$ | -55 to +150 | ${ }^{\circ} \mathrm{C}$ |

Electrical Characteristics ( $\mathrm{T}_{\mathrm{a}}=\mathbf{2 5}{ }^{\circ} \mathrm{C}$ )

| Parameter | Symbol | Min. | Max. | Unit |
| :---: | :---: | :---: | :---: | :---: |
| Forward Voltage $\text { at } I_{F}=10 \mathrm{~mA}$ | $V_{F}$ | - | 1 | V |
| Reverse Breakdown Voltage at $\mathrm{I}_{\mathrm{R}}=5 \mu \mathrm{~A}$ <br> at $I_{R}=100 \mu \mathrm{~A}$ | $V_{\text {(BR)R }}$ <br> $V_{\text {(BR)R }}$ | $\begin{gathered} 75 \\ 100 \\ \hline \end{gathered}$ | - | $\begin{aligned} & \mathrm{V} \\ & \mathrm{~V} \end{aligned}$ |
| $\begin{aligned} & \text { Reverse Current } \\ & \text { at } \mathrm{V}_{\mathrm{R}}=20 \mathrm{~V} \\ & \text { at } \mathrm{V}_{\mathrm{R}}=75 \mathrm{~V} \\ & \text { at } \mathrm{V}_{\mathrm{R}}=20 \mathrm{~V}, \mathrm{~T}_{\mathrm{j}}=150 \circ \mathrm{C} \\ & \hline \end{aligned}$ | IR |  | $\begin{gathered} 25 \\ 5 \\ 50 \\ \hline \end{gathered}$ | nA $\mu \mathrm{A}$ $\mu \mathrm{A}$ |
| Capacitance at $\mathrm{V}_{\mathrm{R}}=0 \mathrm{~V}, \mathrm{f}=1 \mathrm{MHz}$ | Ctot | - | 4 | pF |
| Reverse Recovery Time at $\mathrm{I}_{\mathrm{F}}=\mathrm{I}_{\mathrm{R}}=30 \mathrm{~mA}, \mathrm{I}_{\mathrm{rr}}=3 \mathrm{~mA}, \mathrm{R}_{\mathrm{L}}=100 \Omega$ | trr | - | 50 | ns |

## Typical Characteristics



## PACKAGE OUTLINE

| UN T | A | $\mathrm{b}_{p}$ | C | D | E | HE | $\mathrm{A}_{1}$ | $\mathrm{~L}_{p}$ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1.20 | 0.60 | 0.135 | 2.75 | 1.65 | 3.85 | 0.10 | 0.50 |
|  | 0.90 | 0.50 | 0.100 | 2.55 | 1.55 | 3.55 | 0.01 | 0.20 |

