## Silicon Epitaxial Planar Switching Diode

## Features

- AEC-Q101 Qualified
- Halogen and Antimony Free(HAF), RoHS compliant


## PINNING

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



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

| Parameter | Symbol | Value | Unit |
| :---: | :---: | :---: | :---: |
| Repetitive Reverse Voltage | $\mathrm{V}_{\text {RRM }}$ | 100 | V |
| Average Rectified Forward Current | $\mathrm{I}_{\text {( }}$ (AV) | 215 | mA |
| Non-repetitive Peak Forward Surge Current $\quad \begin{array}{ll}\text { at } t=1 \mathrm{~s} \\ \text { at }=1 \mu \mathrm{~s}\end{array}$ | $\mathrm{I}_{\text {FSM }}$ | $\begin{aligned} & 1 \\ & 2 \\ & \hline \end{aligned}$ | A |
| Power Dissipation | $\mathrm{P}_{\text {tot }}$ | 400 | mW |
| Thermal Resistance from Junction to Ambient Air | $\mathrm{R}_{\text {өJA }}$ | 312 | ${ }^{\circ} \mathrm{C} / \mathrm{W}$ |
| 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 $\left(\mathrm{T}_{\mathrm{a}}=25^{\circ} \mathrm{C}\right)$

| Parameter | Symbol | Min. | Max. | Unit |
| :---: | :---: | :---: | :---: | :---: |
| Reverse Breakdown Voltage at $I_{R}=5 \mu \mathrm{~A}$ <br> at $I_{R}=100 \mu \mathrm{~A}$ | $\mathrm{V}_{(\mathrm{BR}) \mathrm{R}}$ | $\begin{gathered} 75 \\ 100 \end{gathered}$ | - | V |
| Forward Voltage at $I_{F}=10 \mathrm{~mA}$ | $V_{F}$ | - | 1 | V |
| $\begin{aligned} & \text { Reverse Current } \\ & \text { at } \mathrm{V}_{R}=20 \mathrm{~V} \\ & \text { at } \mathrm{V}_{\mathrm{R}}=75 \mathrm{~V} \\ & \text { at } \mathrm{V}_{\mathrm{R}}=20 \mathrm{~V}, \mathrm{~T}_{\mathrm{j}}=150^{\circ} \mathrm{C} \\ & \hline \end{aligned}$ | $\mathrm{I}_{\mathrm{R}}$ |  | $\begin{gathered} 25 \\ 5 \\ 50 \end{gathered}$ | nA $\mu \mathrm{A}$ $\mu \mathrm{A}$ |
| $\begin{aligned} & \text { Capacitance } \\ & \text { at } V_{R}=0 \mathrm{~V}, \mathrm{f}=1 \mathrm{MHz} \end{aligned}$ | $\mathrm{C}_{\text {tot }}$ | - | 4 | pF |
| Reverse Recovery Time at $I_{F}=10 \mathrm{~mA}, \mathrm{I}_{\mathrm{rr}}=0.1 \times \mathrm{I}_{\mathrm{R}}, \mathrm{V}_{\mathrm{R}}=6 \mathrm{~V}, \mathrm{R}_{\mathrm{L}}=100 \Omega$ | $\mathrm{trr}_{\text {r }}$ | - | 4 | ns |

## ACKAGE OUTLINE

Plastic surface mounted package; 2 leads


| UNIT | A | $\mathrm{b} p$ | c | D | E | $\mathrm{H}_{\mathrm{E}}$ | v | $\angle$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| mm | 1.15 | 0.6 | 0.135 | 2.7 | 1.65 | 3.85 | 0.2 | $5^{\circ}$ |

## Recommended Soldering Footprint



## Packing information

| Package | Tape Width <br> $(\mathrm{mm})$ | Pitch |  | Reel Size |  | Per Reel Packing Quantity |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | mm | (inch) | mm | (inch) |  |
| SOD-123 | 8 | $4 \pm 0.1$ | $0.157 \pm 0.004$ | 178 | 7 | 3,000 |

## Marking information

" III " = Cathode line
" W1 " = Part No.
"•" = HAF (Halogen and Antimony Free)


Font type: Arial

