BAS16W

## Silicon Epitaxial Planar Switching Diode

## Features

- Fast switching diode


## MARKING:A6

PINNING

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



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

| Parameter | Symbol | Value | Unit |
| :--- | :---: | :---: | :---: |
| Reverse Voltage | $\mathrm{V}_{\mathrm{R}}$ | 75 | V |
| Peak Reverse Voltage | $\mathrm{V}_{\mathrm{RM}}$ | 100 | V |
| Forward Current (Continuous) | $\mathrm{I}_{\mathrm{F}}$ | 250 | mA |
| Non-repetitive Peak Forward Surge Currentat $\mathrm{t}=1 \mathrm{~s}$ <br> at $\mathrm{t}=1 \mathrm{~ms}$ <br> at $\mathrm{t}=1 \mu \mathrm{~s}$ | $\mathrm{I}_{\mathrm{FSM}}$ |  <br>  <br> Power Dissipation | $\mathrm{P}_{\text {tot }}$ |
| Junction Temperature | $\mathrm{T}_{\mathrm{j}}$ | 200 | A |
| Storage Temperature Range | $\mathrm{T}_{\text {stg }}$ | -65 to +150 | ${ }^{\circ} \mathrm{C}$ |

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

| Parameter | Symbol | Max. | Unit |
| :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { Forward Voltage } \\ & \text { at } I_{F}=1 \mathrm{~mA} \\ & \text { at } I_{F}=10 \mathrm{~mA} \\ & \text { at } I_{F}=50 \mathrm{~mA} \\ & \text { at } I_{F}=150 \mathrm{~mA} \end{aligned}$ | $V_{F}$ | $\begin{gathered} 0.715 \\ 0.855 \\ 1 \\ 1.25 \end{gathered}$ | V |
| Reverse Leakage Current at $\mathrm{V}_{\mathrm{R}}=75 \mathrm{~V}$ <br> at $\mathrm{V}_{\mathrm{R}}=25 \mathrm{~V}, 1_{\mathrm{J}}=150^{\circ} \mathrm{C}$ <br> at $\mathrm{V}_{\mathrm{R}}=75 \mathrm{~V}, \mathrm{~T}_{\mathrm{J}}=150^{\circ} \mathrm{C}$ | $I_{\text {R }}$ | $\begin{gathered} 1 \\ 30 \\ 50 \end{gathered}$ | $\mu \mathrm{A}$ |
| Diode Capacitance at $\mathrm{V}_{\mathrm{R}}=0 \mathrm{~V}, \mathrm{f}=1 \mathrm{MHz}$ | $\mathrm{C}_{\text {tot }}$ | 2 | pF |
| Reverse Recovery Time at $\mathrm{I}_{\mathrm{F}}=10 \mathrm{~mA}$ to $\mathrm{I}_{\mathrm{R}}=10 \mathrm{~mA}, \mathrm{I}_{\mathrm{R}}=1 \mathrm{~mA}, \mathrm{R}_{\mathrm{L}}=100 \Omega$ | $t_{\text {rr }}$ | 6 | ns |



## PACKAGE OUTLINE

Plastic surface mounted package; 2 leads


| Symbol | Dimension in Millimeters |  |
| :---: | :---: | :---: |
|  | Min | Max |
| A | 0.95 | 1.15 |
| A1 | 0.01 | 0.100 |
| B | 1.55 | 1.65 |
| bp | 0.50 | 0.70 |
| C | 0.09 | 0.150 |
| E | 2.60 | 2.70 |
| HE | 3.45 | 3.85 |
| Lp | 0.20 | 0.45 |
| $\theta$ | $0^{\circ}$ | $5^{\circ}$ |

