## Feature

> For surface mounted applications
> Fast reverse recovery time
> Ideal for automated placement
> Lead free in comply with EU RoHS 2011/65/EU directives

## Mechanical Characteristics

> Case: SOD-323
> Terminals: Solderable per MIL-STD-750, Method 2026
> Approx. Weight: $5.48 \mathrm{mg} / 0.00019 \mathrm{oz}$


## SOD-323(Top View)



Circuit Diagram

## Absolute maximum rating@ $25^{\circ} \mathrm{C}$

| Parameter | Symbol | PBAV19WB | PBAV20WB | PBAV21WB | Units |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Non-Repetitive Peak Reverse Voltage | $\mathrm{V}_{\text {RM }}$ | 120 | 200 | 250 | V |
| RMS Reverse Voltage | $V_{\text {RMS }}$ | 71 | 106 | 141 | V |
| Average Rectified Output Current | 10 | 200 |  |  | mA |
| Repetitive Peak Forward Current | $\mathrm{I}_{\text {FRM }}$ | 625 |  |  | mA |
| Non-reptitive Peak Forward Surge Current@t < 8.3ms | $\mathrm{I}_{\text {FSM }}$ | 2 |  |  | A |
| Total Power Dissipation | $\mathrm{P}_{\text {tot }}$ | 500 |  |  | mW |
| Operating and Storage Temperature Range | $\mathrm{T}_{\mathrm{j}}, \mathrm{T}_{\text {stg }}$ | -55~+150 |  |  | ${ }^{\circ} \mathrm{C}$ |

## Electrical characteristics per line@25응

| Parameter |  | Symbol | PBAV19WB | PBAV20WB | PBAV21WB | Units |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Reverse BreakdownVoltage at $\mathrm{I}_{\mathrm{R}}=100 \mu \mathrm{~A}$ |  | $V_{B R}$ | 120 | 200 | 250 | V |
| Maximum Forward Voltage | at 100 mA | $V_{F}$ | $\begin{aligned} & 1.00 \\ & 1.25 \end{aligned}$ |  |  |  |
|  | at 200 mA |  |  |  |  | V |
| Maximum DC Reverse Current at Rated DC Blocking Voltage |  | $I_{R}$ | 0.1 |  |  | $\mu \mathrm{A}$ |
| Typical Junction Capacitance at $\mathrm{V}_{\mathrm{R}}=0 \mathrm{~V}, \mathrm{f}=1 \mathrm{MHz}$ |  | $\mathrm{C}_{\mathrm{j}}$ | 5 |  |  | pF |
| Maximum Reverse Recovery Time ${ }^{1)}$ |  | $\mathrm{t}_{\mathrm{rr}}$ | 50 |  |  | ns |

Notes:

1) Measured with $I F=0.5 \mathrm{~A}, \mathrm{IR}=1 \mathrm{~A}, \mathrm{Irr}=0.25 \mathrm{~A}$

## Typical Characteristics



Fig. 1 Power Derating Curve


Fig. 3 Typical Instaneous Forward Characteristics


Fig. 2 Typical Reverse Characteristics


Fig. 4 Typical Junction Capacitance

## Product dimension (SOD-323



| $\operatorname{Dim}$ | Millimeters |  | Inches |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Min | Max | Min | Max |
| A | 0.80 | 1.10 | 0.031 | 0.043 |
| A1 | - | 0.20 | - | 0.008 |
| C | 0.08 | 0.15 | 0.003 | 0.006 |
| D | 1.20 | 1.40 | 0.047 | 0.055 |
| E | 1.40 | 1.80 | 0.055 | 0.071 |
| E1 | 2.55 | 2.75 | 0.100 | 0.108 |
| b | 0.25 | 0.40 | 0.010 | 0.016 |
| L1 | 0.20 | 0.45 | 0.008 | 0.018 |
| L | $9^{\circ}$ |  | $9^{\circ}$ |  |



Suggested PCB Layout
Unit:mm

## IMPORTANT NOTICE


#### Abstract

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