## BAS29，BAS31，BAS35

## Silicon Epitaxial Planar Switching Diodes




BAS29 Marking Code：L20 BAS31 Marking Code：L21 BAS35 Marking Code：L22 SOT－23 Plastic Package

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

| Parameter | Symbol | Value | Unit |
| :--- | :---: | :---: | :---: |
| Repetitive Peak Reverse Voltage | $\mathrm{V}_{\mathrm{RRM}}$ | 120 | V |
| Maximum Average Forward Current | $\mathrm{I}_{\mathrm{F}(\mathrm{AV})}$ | 200 | mA |
| Repetitive Peak Forward Current | $\mathrm{I}_{\mathrm{FRM}}$ | 600 | mA |
| Non－Repetitive Peak Forward Surge Current | $\mathrm{t}=1 \mu \mathrm{~s}$ |  |  |
| $\mathrm{t}=1 \mathrm{~s}$ |  |  |  |$)$

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

| Parameter | Symbol | Min． | Max． | Unit |
| :---: | :---: | :---: | :---: | :---: |
| Forward Voltage at $\mathrm{I}_{\mathrm{F}}=10 \mathrm{~mA}$ at $\mathrm{I}_{\mathrm{F}}=50 \mathrm{~mA}$ at $I_{F}=100 \mathrm{~mA}$ at $I_{F}=200 \mathrm{~mA}$ at $I_{F}=400 \mathrm{~mA}$ | $\begin{aligned} & \mathrm{V}_{\mathrm{F}} \\ & \mathrm{~V}_{\mathrm{F}} \\ & \mathrm{~V}_{\mathrm{F}} \\ & \mathrm{~V}_{\mathrm{F}} \\ & \mathrm{~V}_{\mathrm{F}} \end{aligned}$ |  | $\begin{gathered} 750 \\ 840 \\ 900 \\ 1 \\ 1.25 \end{gathered}$ | $\begin{gathered} \mathrm{mV} \\ \mathrm{mV} \\ \mathrm{mV} \\ \mathrm{~V} \\ \mathrm{~V} \end{gathered}$ |
| $\begin{aligned} & \text { Reverse Current } \\ & \text { at } V_{R}=90 \mathrm{~V} \\ & \text { at } V_{R}=90 \mathrm{~V}, T_{J}=150^{\circ} \mathrm{C} \end{aligned}$ | $\begin{aligned} & \mathrm{I}_{\mathrm{R}} \\ & \mathrm{I}_{\mathrm{R}} \end{aligned}$ | － | $\begin{aligned} & 100 \\ & 100 \end{aligned}$ | $\begin{aligned} & \mathrm{nA} \\ & \mu \mathrm{~A} \end{aligned}$ |
| Reverse Breakdown Voltage at $\mathrm{I}_{\mathrm{R}}=1 \mathrm{~mA}$ | $\mathrm{V}_{(\mathrm{BR}) \mathrm{R}}$ | 120 | － | V |
| Total Capacitance at $\mathrm{V}_{\mathrm{R}}=0 \mathrm{~V}, \mathrm{f}=1 \mathrm{MHz}$ | $\mathrm{C}_{\text {T }}$ | － | 35 | pF |
| Reverse Recovery Time at $I_{F}=I_{R}=10 \mathrm{~mA}, I_{\text {rf }}=1 \mathrm{~mA}, R_{L}=100 \Omega$ | $\mathrm{t}_{\mathrm{rr}}$ | － | 50 | ns | 0

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