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## Features

- Fast switching speed
- Ultra-Small surface mount package
- For general purpose switching applications
- High conductance


## Mechanical Data

- Case Material:Molded Plastic. UL Flammability Classificatio Rating 94-0 and MSL Rating 1
- Marking Code: KJC


## Maximum Ratings

| Symbol | Rating | Rating | Unit |
| :---: | :--- | :---: | :---: |
| $\mathrm{V}_{\text {RM }}$ | Non-Repetitive Peak Reverse Voltage | 100 | V |
| $\mathrm{~V}_{\text {RRM }}$ | Peak Repetitive Reverse Voltage <br> $\mathrm{V}_{\text {RWM }}$ <br> $\mathrm{V}_{\mathrm{R}}$ | Working Peak Reverse Voltage <br> DC Blocking Voltage | 75 |
| $\mathrm{~V}_{\mathrm{R}(\mathrm{RMS})}$ | RMS Reverse Voltage | V |  |
| $\mathrm{I}_{\mathrm{FM}}$ | Forward Continuous Current | 53 | V |
| $\mathrm{I}_{\mathrm{O}}$ | Average Rectified Output Current | 300 | mA |
|  | Non-Repetitive Peak Forward Surge Current | 150 | mA |
| $\mathrm{I}_{\text {FSM }}$ | $@ \mathrm{t}=1.0$ us | 2.0 |  |
|  | $@ \mathrm{t}=1.0 \mathrm{~s}$ | A |  |
| $\mathrm{P}_{\mathrm{D}}$ | Power Dissipation | 1.0 |  |
| $\mathrm{R}_{\mathrm{JA}}$ | Thermal Resistance Junction to Ambient Air | 200 | mW |
| $\mathrm{~T}_{\mathrm{J}}$ | Junction Temperature | 625 | ${ }^{\circ} \mathrm{C} / \mathrm{W}$ |
| $\mathrm{T}_{\mathrm{STG}}$ | Storage Temperature | -55 to +150 | ${ }^{\circ} \mathrm{C}$ |

Electrical Characteristics @ $25^{\circ} \mathrm{C}$ Unless Otherwise Specified

| Symbol | Parameter | Min | Typ | Max | Units |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $\mathrm{V}_{(\mathrm{BR}) \mathrm{R}}$ | Reverse Breakdown Voltage ( $\mathrm{I}_{\mathrm{R}}=2.5 \mu \mathrm{Adc}$ ) | 75 | --- | --- | V |
| $V_{F}$ | $\begin{aligned} & \text { Forward Voltage }^{(1)} \\ & \mathrm{I}_{\mathrm{F}}=1.0 \mathrm{mAdc} \\ & \mathrm{I}_{\mathrm{F}}=10 \mathrm{mAdc} \\ & \mathrm{I}_{\mathrm{F}}=50 \mathrm{mAdc} \\ & \mathrm{I}_{\mathrm{F}}=150 \mathrm{mAdc} \end{aligned}$ | ----- |  | $\begin{gathered} 0.715 \\ 0.855 \\ 1.0 \\ 1.25 \end{gathered}$ | V |
| $I_{\text {R }}$ | $\begin{aligned} & \text { Leakage Current }^{(1)} \\ & \left(\mathrm{V}_{\mathrm{R}}=75 \mathrm{Vdc}\right) \\ & \left(\mathrm{V}_{\mathrm{R}}=75 \mathrm{Vdc}, \mathrm{Tj}=150^{\circ} \mathrm{C}\right) \\ & \left(\mathrm{V}_{\mathrm{R}}=25 \mathrm{Vdc}, \mathrm{Tj}=150^{\circ} \mathrm{C}\right) \\ & \left(\mathrm{V}_{\mathrm{R}}=20 \mathrm{Vdc}\right) \\ & \hline \end{aligned}$ | $\begin{gathered} \text {---- } \\ \text {----- } \\ \hline \end{gathered}$ | ---- | $\begin{aligned} & 2.5 \\ & 50 \\ & 30 \\ & 25 \\ & \hline \end{aligned}$ | uA uA uA nA |
| $\mathrm{C}_{\mathrm{j}}$ | Junction Capacitance $\left(\mathrm{V}_{\mathrm{R}}=0, \mathrm{f}=1.0 \mathrm{MHz}\right)$ | --- | --- | 2.0 | pF |
| $\mathrm{trr}_{\text {r }}$ | $\begin{aligned} & \text { Reverse Recovery Time } \\ & \left(I_{F}=10 \mathrm{~mA}, \mathrm{I}_{\mathrm{R}}=10 \mathrm{~mA}, \operatorname{Irr}=0.1 \times I_{\mathrm{R}}\right. \\ & \left.\mathrm{R}_{\mathrm{L}}=1000 \mathrm{HMS}\right) \\ & \hline \end{aligned}$ | --- | --- | 4.0 | ns |

*(1) Short duration test pulse to minimize self-heating effect.

## 200mW Switching Diodes

 75 Volts

## BAW56DW



Fig. 1 Forward Characteristics

$\mathrm{V}_{\mathrm{R}}$, REVERSE VOLTAGE (V)
Fig. 3 Typical Capacitance vs. Reverse Veltage


Fig. 2 Typical Reverse Characteristics


Fig. 4 Power Derating Curve

## Ordering Information

| Device | Packing |
| :---: | :---: |
| (Part Number)-TP | Tape\&Reel;3Kpcs/Reel |

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