Fast switching in thick and thin-film circuits diode


Marking Code: A7
SOT-23 Plastic Package


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

| PARAMETER | SYMBOL | VALUE | UNIT |
| :---: | :---: | :---: | :---: |
| Repetitive Peak Reverse Voltage | Vrrm | 85 | V |
| Continuous Reverse Voltage | VR | 75 | V |
| Continuous Forward Current (Double Diode Loaded) | IF | 125 | mA |
| Continuous Forward Current (Single Diode Loaded) | IF | 215 | mA |
| Repetitive Peak Forward Current | IFRM | 450 | mA |
| Non-repetitive Peak Forward Surge Current at $t=1 \mathrm{~s}$ |  | 0.5 |  |
| at $\mathrm{t}=1 \mathrm{~ms}$ | IFSM | 1 | A |
| at $\mathrm{t}=1 \mu \mathrm{~s}$ |  | 4.5 |  |
| Power Dissipation | Ptot | 350 | mW |
| Junction Temperature | $\mathrm{T}_{\mathrm{j}}$ | 150 | ${ }^{\circ} \mathrm{C}$ |
| Storage Temperature Range | $\mathrm{T}_{\text {stg }}$ | - 65 to + 150 | ${ }^{\circ} \mathrm{C}$ |

Characteristics at $\mathrm{Ta}=25^{\circ} \mathrm{C}$

| PARAMETER | SYMBOL | MAX. | UNIT |
| :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { Forward Voltage } \\ & \text { at } I_{F}=1 \mathrm{~mA} \\ & \text { at } I_{F}=10 \mathrm{~mA} \\ & \text { at } I_{F}=50 \mathrm{~mA} \\ & \text { at } I_{F}=150 \mathrm{~mA} \\ & \hline \end{aligned}$ | $V_{F}$ | $\begin{gathered} 0.715 \\ 0.855 \\ 1 \\ 1.25 \\ \hline \end{gathered}$ | V |
| $\begin{aligned} & \text { Reverse Current } \\ & \text { at } V_{R}=25 \mathrm{~V} \\ & \text { at } V_{R}=75 \mathrm{~V} \\ & \text { at } V_{R}=25 \mathrm{~V}, T_{J}=150^{\circ} \mathrm{C} \\ & \text { at } \mathrm{V}_{R}=75 \mathrm{~V}, \mathrm{~T}_{J}=150^{\circ} \mathrm{C} \\ & \hline \end{aligned}$ | IR | $\begin{gathered} 30 \\ 1 \\ 30 \\ 50 \\ \hline \end{gathered}$ | $\begin{aligned} & \mathrm{nA} \\ & \mu \mathrm{~A} \\ & \mu \mathrm{~A} \\ & \mu \mathrm{~A} \end{aligned}$ |
| Diode Capacitance at $\mathrm{V}_{\mathrm{R}}=0, \mathrm{f}=1 \mathrm{MHz}$ | $\mathrm{C}_{\text {d }}$ | 1.5 | pF |
| Reverse Recovery Time at $\mathrm{IF}_{\mathrm{F}}=\mathrm{I}_{\mathrm{R}}=10 \mathrm{~mA}, \mathrm{I}_{\mathrm{R}}=1 \mathrm{~mA}, \mathrm{RL}=100 \Omega$ | trr | 4 | ns |

RATINGS AND CHARACTERISTIC CURVES BAV99


Fig. 1 Forward Characteristics

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

Note: Specifications are subject to change without notice.

