## MMBD4148W／SEW／CCW／CAW

## Silicon Epitaxial Planar Switching Diode



4148CAW


SOT－323 Plastic Package
MMBD4148W Marking Code：A6 MMBD4148SEW Marking Code：A7 MMBD4148CCW Marking Code：PH MMBD4148CAW Marking Code：YX

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

| Parameter | Symbol | Value | Unit |
| :---: | :---: | :---: | :---: |
| Maximum Repetitive Reverse Voltage | $\mathrm{V}_{\text {RRM }}$ | 100 | V |
| Reverse Voltage | $V_{\text {R }}$ | 75 | V |
| Average Rectified Forward Current | $\mathrm{I}_{\text {F（AV）}}$ | 200 | mA |
| DC Forward Current | $\mathrm{I}_{\text {F }}$ | 600 | mA |
| Recurrent Peak Forward Current | FRM | 700 | $\checkmark \mathrm{mA}$ |
| Non－repetitive Peak Forward Surge Current $\begin{aligned} & \text { at } \mathrm{t}=1 \mathrm{~s} \\ & \text { at }=1 \mu \mathrm{~s}\end{aligned}$ | $\mathrm{I}_{\text {FSM }}$ | $\begin{aligned} & 1 \\ & 2 \\ & \hline \end{aligned}$ | A |
| Total Device Dissipation | $\mathrm{P}_{\text {tot }}$ | 200 | mW |
| Operating Junction Temperature |  | 150 | ${ }^{\circ} \mathrm{C}$ |
| Storage Temperature Range | $T_{\text {stg }}$ | -55 to +150 | ${ }^{\circ} \mathrm{C}$ |

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

| Parameter | Symbol | Min． | Max． | Unit |
| :---: | :---: | :---: | :---: | :---: |
| Forward Voltage at $I_{F}=10 \mathrm{~mA}$ | $V_{F}$ | － | 1 | V |
| Reverse Breakdown Voltage $\begin{aligned} & \text { at } I_{R}=100 \mu \mathrm{~A} \\ & \text { at } I_{R}=5 \mu \mathrm{~A} \end{aligned}$ | $V_{(B R) R}$ | $\begin{gathered} 100 \\ 75 \end{gathered}$ | － | V |
| $\begin{aligned} & \text { Reverse Current } \\ & \text { at } \mathrm{V}_{\mathrm{R}}=20 \mathrm{~V} \\ & \text { at } \mathrm{V}_{\mathrm{R}}=75 \mathrm{~V} \\ & \text { at } \mathrm{V}_{\mathrm{R}}=20 \mathrm{~V}, \mathrm{~T}_{\mathrm{a}}=150{ }^{\circ} \mathrm{C} \end{aligned}$ | $I_{\text {R }}$ | － | $\begin{gathered} 25 \\ 5 \\ 50 \end{gathered}$ | nA <br> $\mu \mathrm{A}$ <br> $\mu \mathrm{A}$ |
| Reverse Recovery Time at $\mathrm{I}_{\mathrm{F}}=10 \mathrm{~mA}, \mathrm{~V}_{\mathrm{R}}=6 \mathrm{~V}, \mathrm{I}_{\mathrm{RR}}=1 \mathrm{~mA}, \mathrm{R}_{\mathrm{L}}=100 \Omega$ | $\mathrm{t}_{\mathrm{rr}}$ | － | 4 | ns |
| Total Capacitance at $\mathrm{V}_{\mathrm{R}}=0 \mathrm{~V}, \mathrm{f}=1 \mathrm{MHz}$ | $\mathrm{C}_{\text {tot }}$ | － | 4 | pF |



