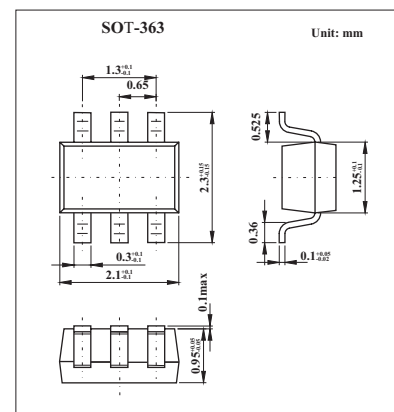


## Surface Mount Fast Switching Diode Array

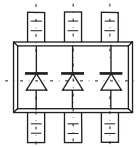
## MMBD4148TW

## ■ Features

- Fast Switching Speed
- Ultra-Small Surface Mount Package
- For General Purpose Switching Applications
- High Conductance



## ■ PIN Array

■ Absolute Maximum Ratings  $T_a = 25^\circ\text{C}$ 

| Parameter   | Symbol          | Rating      | Unit                      |
|---|-----------------|-------------|---------------------------|
| Non-Repetitive Peak Reverse Voltage                               | $V_{RM}$        | 100         | V                         |
| Peak Repetitive Reverse Voltage                                   | $V_{RRM}$       |             |                           |
| Working Peak Reverse Voltage                                      | $V_{RWM}$       | 75          | V                         |
| DC Blocking Voltage   | $V_R$           |             |                           |
| RMS Reverse Voltage   | $V_{R(RMS)}$    | 53          | V                         |
| Forward Continuous Current  | $I_{FM}$        | 300         | mA                        |
| Average Rectified Output Current                                  | $I_o$           | 150         | mA                        |
| Non-Repetitive Peak Forward Surge Current @ $t = 1.0 \mu\text{s}$ | $I_{FSM}$       | 2.0         | A                         |
| @ $t = 1.0\text{s}$   |                 | 1.0         |                           |
| Power Dissipation   | $P_D$           | 200         | mW                        |
| Thermal Resistance Junction to Ambient Air                        | $R_{\theta JA}$ | 625         | $^\circ\text{C}/\text{W}$ |
| Operating and Storage Temperature Range                           | $T_j, T_{STG}$  | -65 to +150 | $^\circ\text{C}$          |

## MMBD4148TW

## ■ Electrical Characteristics Ta = 25°C

| Parameter                     | Symbol          | Testconditons   | Min | Typ   | Max | Unit |
|-------------------------------|-----------------|---|-----|-------|-----|------|
| Reverse Breakdown Voltage (*) | V(BR)R          | I <sub>R</sub> = 1.0 μ A  | 75  |       |     | V    |
| Forward Voltage (*)           | V <sub>F</sub>  | I <sub>F</sub> = 1.0mA  |     | 0.715 |     | V    |
|                               |                 | I <sub>F</sub> = 10mA   |     | 0.855 |     |      |
|                               |                 | I <sub>F</sub> = 50mA   |     | 1.0   |     |      |
|                               |                 | I <sub>F</sub> = 150mA  |     | 1.25  |     |      |
| Leakage Current (*)           | I <sub>R</sub>  | V <sub>R</sub> = 75V  |     | 1.0   |     | μ A  |
|                               |                 | V <sub>R</sub> = 75V, T <sub>j</sub> = 150°C  |     | 50    |     |      |
|                               |                 | V <sub>R</sub> = 25V, T <sub>j</sub> = 150°C  |     | 30    |     |      |
|                               |                 | V <sub>R</sub> = 20V  |     | 25    |     | nA   |
| Total Capacitance             | C <sub>T</sub>  | V <sub>R</sub> = 0, f = 1.0MHz  |     | 2.0   |     | pF   |
| Reverse Recovery Time         | t <sub>rr</sub> | I <sub>F</sub> = I <sub>R</sub> = 10mA, I <sub>rr</sub> = 0.1 x I <sub>R</sub> , R <sub>L</sub> = 100 Ω |     | 4.0   |     | ns   |

\* Short duration test pulse used to minimize self-heating effect.

## ■ Marking

|         |     |
|---------|-----|
| Marking | KA2 |
|---------|-----|