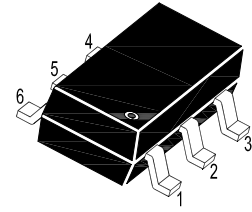
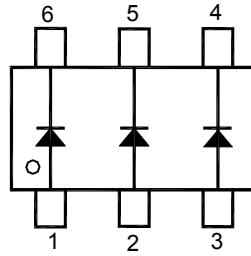


# MMBD4148DW

## Silicon Epitaxial Planar Switching Diode

### Features

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



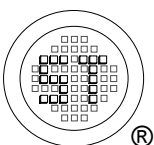
1. Anode 2. Anode 3. Anode  
4. Cathode 5. Cathode 6. Cathode  
Marking Code: KA  
SOT-363 Plastic package

### Absolute Maximum Ratings ( $T_a = 25^\circ\text{C}$ )

| Parameter                               | Symbol          | Value                                   | Unit               |
|---|-----------------|---|--------------------|
| Peak Reverse Voltage                    | $V_{RM}$        | 100                                     | V                  |
| Reverse Voltage                         | $V_R$           | 75                                      | V                  |
| Average Rectified Forward Current       | $I_{F(AV)}$     | 200                                     | mA                 |
| Forward Continuous Current              | $I_{FM}$        | 300                                     | mA                 |
| Non-Repetitive Peak Forward Current     | $I_{FSM}$       | 2<br>1                                  | A                  |
|   |                 | $t = 1 \mu\text{s}$<br>$t = 1 \text{s}$ |                    |
| Power Dissipation                       | $P_{tot}$       | 200                                     | mW                 |
| Thermal Resistance, Junction to Ambient | $R_{\theta JA}$ | 625                                     | $^\circ\text{C/W}$ |
| Operating and Storage Temperature Range | $T_j, T_{stg}$  | - 65 to + 150                           | $^\circ\text{C}$   |

### Characteristics at $T_a = 25^\circ\text{C}$

| Parameter  | Symbol      | Min.             | Max.                        | Unit  |
|--|-------------|------------------|-----------------------------|---|
| Reverse Breakdown Voltage<br>at $I_R = 100 \mu\text{A}$  | $V_{(BR)R}$ | 75               | -                           | V   |
| Forward Voltage<br>at $I_F = 1 \text{ mA}$<br>at $I_F = 10 \text{ mA}$<br>at $I_F = 50 \text{ mA}$<br>at $I_F = 150 \text{ mA}$  | $V_F$       | -<br>-<br>-<br>- | 0.715<br>0.855<br>1<br>1.25 | V   |
| Peak Reverse Current<br>at $V_R = 20 \text{ V}$<br>at $V_R = 75 \text{ V}$<br>at $V_R = 25 \text{ V}, T_j = 150^\circ\text{C}$<br>at $V_R = 75 \text{ V}, T_j = 150^\circ\text{C}$ | $I_R$       | -<br>-<br>-<br>- | 25<br>1<br>30<br>50         | nA<br>$\mu\text{A}$<br>$\mu\text{A}$<br>$\mu\text{A}$ |
| Total Capacitance<br>at $V_R = 0 \text{ V}, f = 1 \text{ MHz}$   | $C_T$       | -                | 2                           | pF  |
| Reverse Recovery Time<br>at $I_F = I_R = 10 \text{ mA}, I_{rr} = 0.1 \times I_R, R_L = 100 \Omega$   | $t_{rr}$    | -                | 4                           | ns  |



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Power Dissipation vs Ambient Temperature

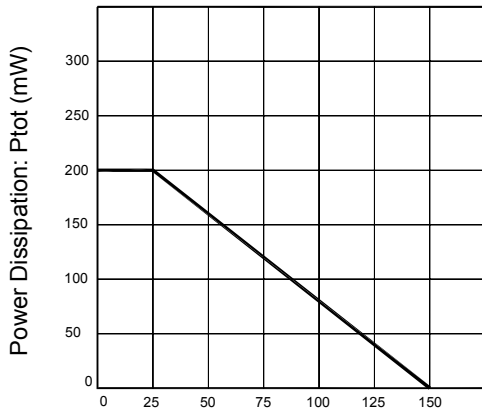


Fig.1 Ambient Temperature: Ta ( C )

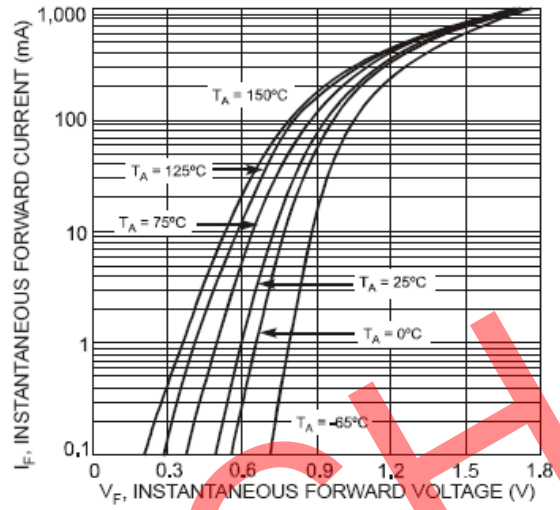


Fig. 2 Typical Forward Characteristics

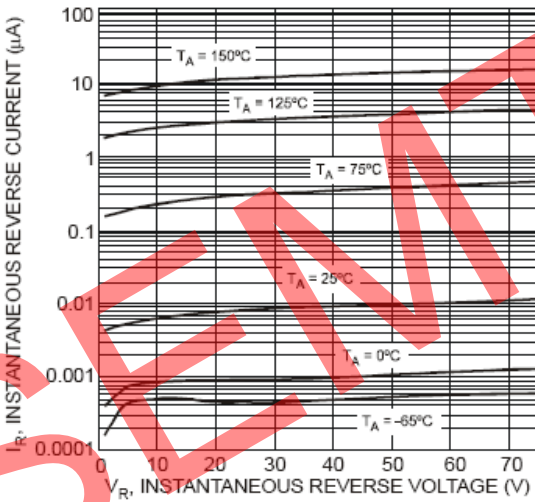


Fig. 3 Typical Reverse Characteristics

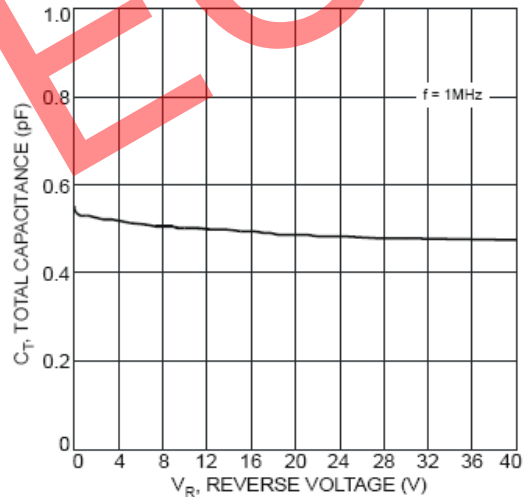
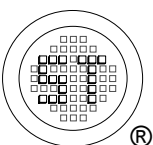


Fig. 4 Typical Total Capacitance



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