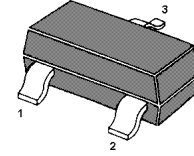
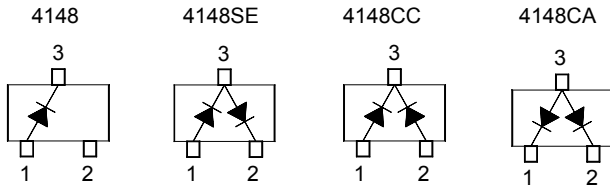


Silicon Epitaxial Planar Switching Diode



MMBD4148 Marking Code: **5H**
 MMBD4148SE Marking Code: **D4**
 MMBD4148CC Marking Code: **D5**
 MMBD4148CA Marking Code: **D6**
 SOT-23 Plastic Package

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

| Parameter | Symbol | Value | Unit |
|---|-------------|--|------------------|
| Maximum Repetitive Reverse Voltage | V_{RRM} | 100 | V |
| Reverse Voltage | V_R | 75 | V |
| Average Rectified Forward Current | $I_{F(AV)}$ | 200 | mA |
| DC Forward Current | I_{FM} | 600 | mA |
| Recurrent Peak Forward Current | I_{FRM} | 700 | mA |
| Non-repetitive Peak Forward Surge Current | I_{FSM} | 1 2 | A |
| | | at $t = 1\text{ s}$ at $t = 1\text{ }\mu\text{s}$ | |
| Total Device Dissipation | P_{tot} | 350 | mW |
| Operating Junction Temperature | T_j | 150 | $^\circ\text{C}$ |
| Storage Temperature Range | T_{stg} | - 55 to + 150 | $^\circ\text{C}$ |

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

| Parameter | Symbol | Min. | Max. | Unit |
|---|-------------|-------------|---------------|--------------------------------------|
| Forward Voltage at $I_F = 10\text{ mA}$ | V_F | - | 1 | V |
| Reverse Breakdown Voltage at $I_R = 100\text{ }\mu\text{A}$ at $I_R = 5\text{ }\mu\text{A}$ | $V_{(BR)R}$ | 100 75 | - - | V |
| Reverse Current at $V_R = 20\text{ V}$ at $V_R = 75\text{ V}$ at $V_R = 20\text{ V}$, $T_a = 150\text{ }^\circ\text{C}$ | I_R | - - - | 25 5 50 | nA μA μA |
| Reverse Recovery Time at $I_F = 10\text{ mA}$, $V_R = 6\text{ V}$, $I_{RR} = 1\text{ mA}$, $R_L = 100\text{ }\Omega$ | t_{rr} | - | 4 | ns |
| Total Capacitance at $V_R = 0\text{ V}$, $f = 1\text{ MHz}$ | C_T | - | 4 | pF |

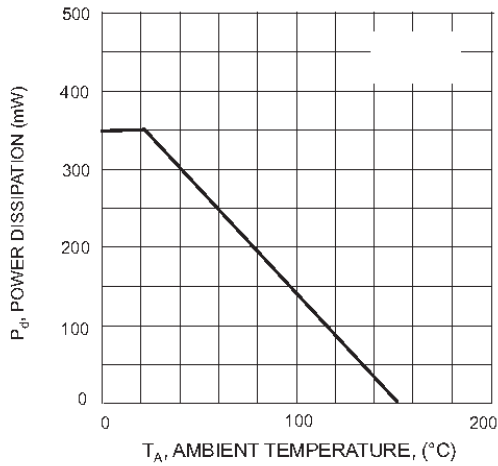


Fig. 1 Power Derating Curve

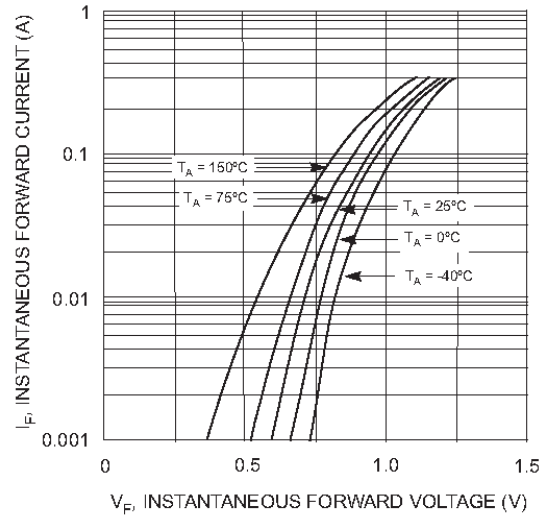


Fig. 2 Forward Characteristics

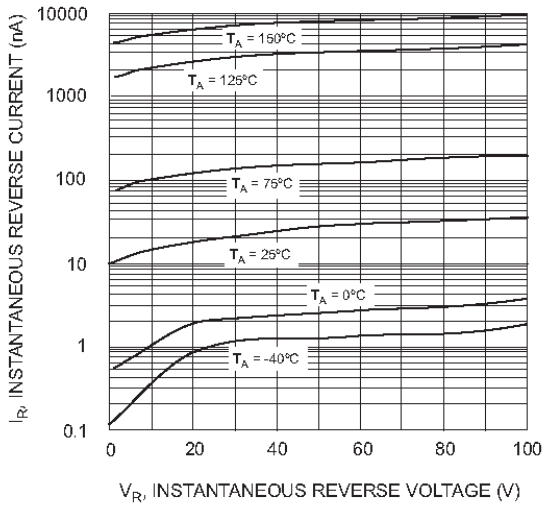


Fig. 3 Typical Reverse Characteristics

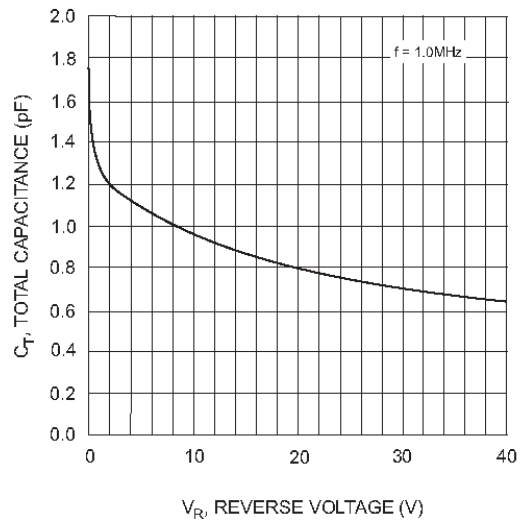


Fig. 4 Typical Capacitance vs. Reverse Voltage