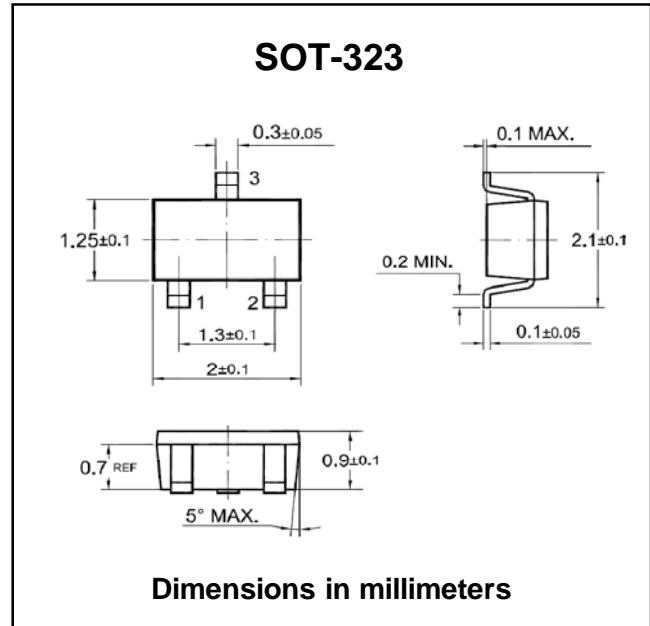
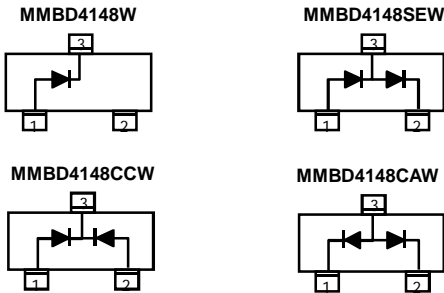


# MMBD4148W/SEW/CCW/CAW

# SILICON EPITAXIAL PLANAR SWITCHING DIODE



### MECHANICAL DATA :

- \* Case : SOT-323 plastic Case
- \* MMBD4148W Marking Code : A6
- \* MMBD4148SEW Marking Code : A7
- \* MMBD4148CCW Marking Code : PH
- \* MMBD4148CAW Marking Code : YX

### ABSOLUTE MAXIMUM RATINGS ( Ta = 25 °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 | $I_{FSM}$   | at t = 1 s       | 1.0  | A |
|   |             | at t = 1 $\mu$ s | 2.0  |   |
| Total Power Dissipation                   | $P_{tot}$   | 200              | mW   |   |
| Operating Junction Temperature            | $T_J$       | 150              | °C   |   |
| Storage Temperature Range                 | $T_{STG}$   | -55 to +150      | °C   |   |

### ELECTRICAL CHARACTERISTICS ( Ti = 25 °C )

| Parameter                 | Test Condition  | Symbol     | Min. | Max. | Unit    |
|---------------------------|---|------------|------|------|---------|
| Reverse Breakdown Voltage | $I_R = 100 \mu A$   | $V_{(BR)}$ | 100  | -    | V       |
|                           | $I_R = 5 \mu A$   |            | 75   | -    |         |
| Forward Voltage           | $I_F = 10 mA$   | $V_F$      | -    | 1    | V       |
| Reverse Current           | $V_R = 20 V$  | $I_R$      | -    | 25   | nA      |
|                           | $V_R = 20 V, T_a = 150 °C$                                    |            | -    | 50   | $\mu A$ |
|                           | $V_R = 75 V$  |            | -    | 5    | $\mu A$ |
| Total Capacitance         | $V_R = 0 V, f = 1 MHz$  | $C_{tot}$  | -    | 4    | pF      |
| Reverse Recovery Time     | $I_F = 10 mA, V_R = 6 V$<br>$I_{rr} = 1 mA, R_L = 100 \Omega$ | $T_{rr}$   | -    | 4    | ns      |

RATINGS AND CHARACTERISTIC CURVES ( MMBD4148W/SEW/CCW/CAW )

FIG.1 - POWER DERATING CURVE

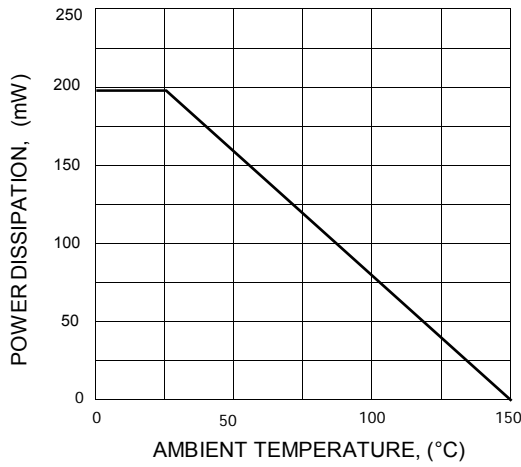


FIG.2 - TYPE CAPACITANCE VS. REVERSE VOLTAGE

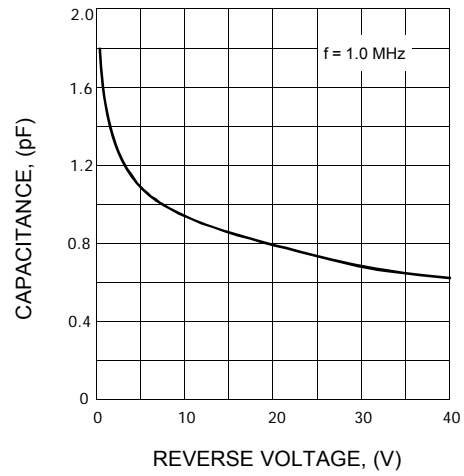


FIG.3 - FORWARD CHARACTERISTICS

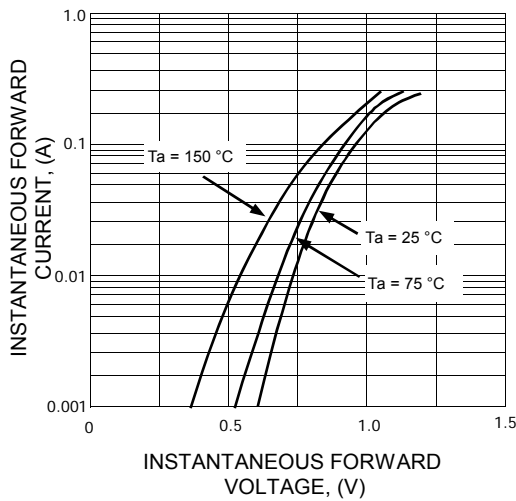


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

