

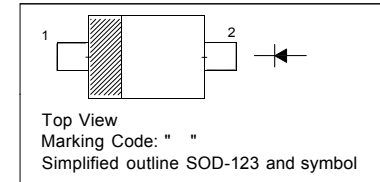
## 1N4148W Silicon Epitaxial Planar Switching Diode

### Features

- SOD-123 package
- Fast switching
- These diodes are also available in other case style including the DO-35 case with the type designation 1N4148, the MiniMELF case with the type designation LL4148 and the MicroMELF case with the type designation MCL4148.

### PINNING

| PIN | DESCRIPTION |
|-----|-------------|
| 1   | Cathode     |
| 2   | Anode       |

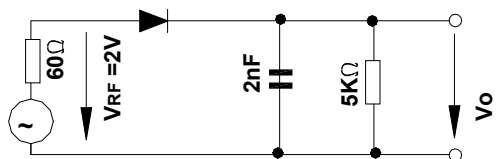


### Absolute Maximum Ratings ( $T_a = 25\text{ }^\circ\text{C}$ )

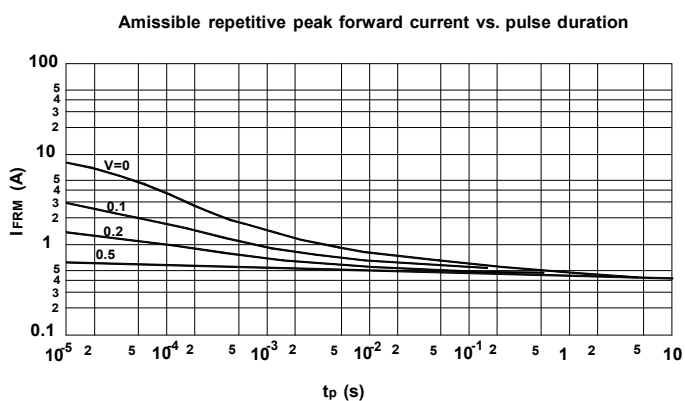
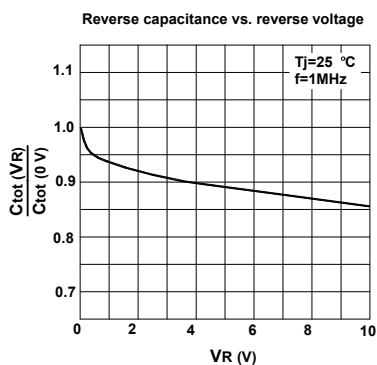
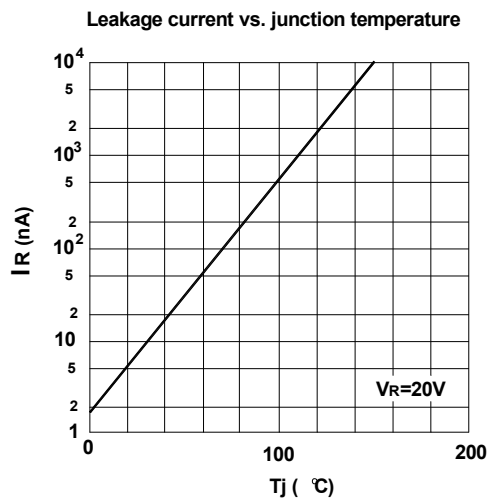
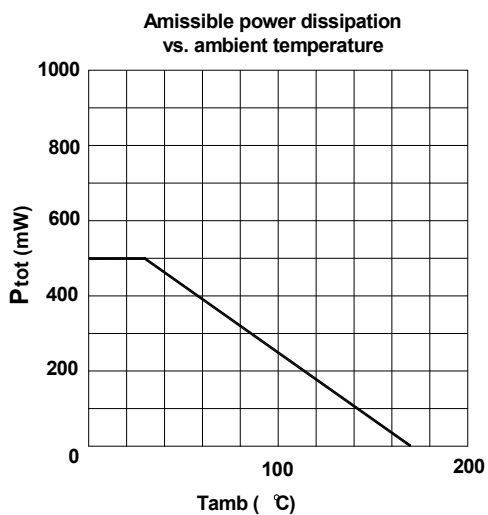
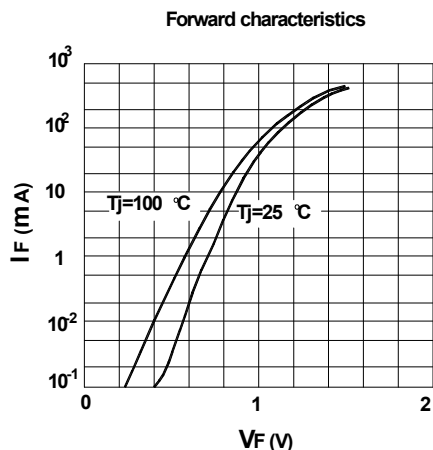
| Parameter   | Symbol          | Value         | Unit               |
|---|-----------------|---------------|--------------------|
| Peak Reverse Voltage  | $V_{RM}$        | 100           | V                  |
| Reverse Voltage   | $V_R$           | 75            | V                  |
| Average Rectified Forward Current                                       | $I_{F(AV)}$     | 150           | mA                 |
| Non-repetitive Peak Forward Surge Current at $t = 1\text{ }\mu\text{s}$ | $I_{FSM}$       | 2             | A                  |
| Power Dissipation   | $P_{tot}$       | 400           | mW                 |
| Thermal Resistance from Junction to Ambient Air                         | $R_{\theta JA}$ | 312           | $^\circ\text{C/W}$ |
| Junction Temperature  | $T_j$           | 150           | $^\circ\text{C}$   |
| Storage Temperature Range   | $T_{stg}$       | - 65 to + 150 | $^\circ\text{C}$   |

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

| Parameter  | Symbol      | Min.             | Max.                        | Unit  |
|--|-------------|------------------|-----------------------------|---|
| Reverse Breakdown Voltage<br>at $I_R = 1\text{ }\mu\text{A}$   | $V_{(BR)R}$ | 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 $V_R = 75\text{ V}$<br>at $V_R = 20\text{ V}$<br>at $V_R = 75\text{ V}, T_J = 150\text{ }^\circ\text{C}$<br>at $V_R = 25\text{ V}, T_J = 150\text{ }^\circ\text{C}$ | $I_R$       | -<br>-<br>-<br>- | 1<br>25<br>50<br>30         | $\mu\text{A}$<br>nA<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 $I_{rr} = 0.1 \times I_R, I_F = I_R = 10\text{ mA}, R_L = 100\text{ }\Omega$   | $t_{rr}$    | -                | 4                           | ns  |



Rectification Efficiency Measurement Circuit





## PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

SOD-123

