

## Description

These diodes are also available in other case styles including the DO-35 case with the type designation IN4148, the MiniMELF case with the type designation LL4148 and the MicroMELF case with the type designation MCL4148.

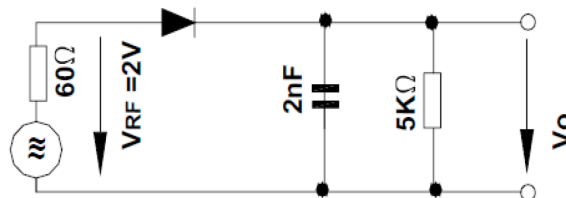
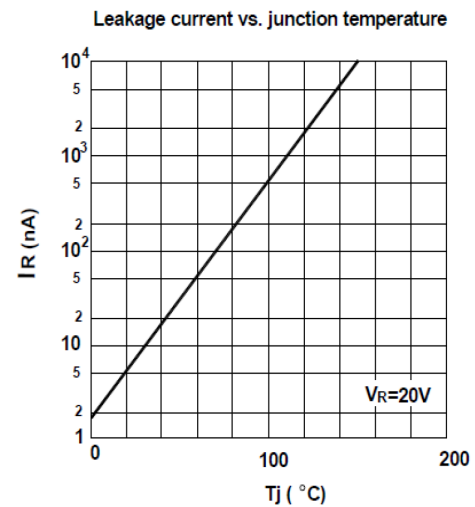
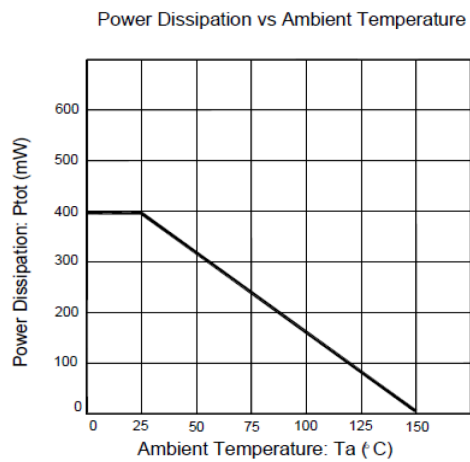
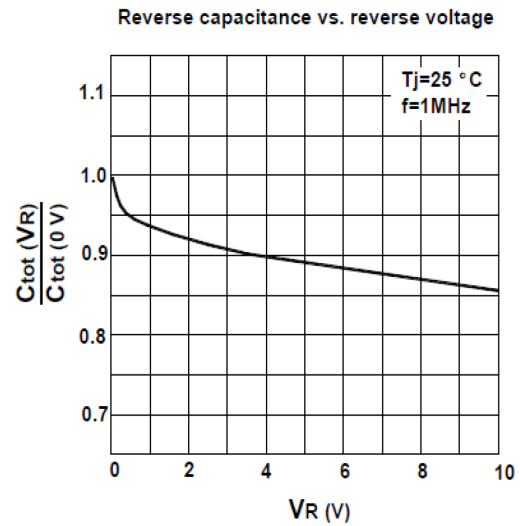
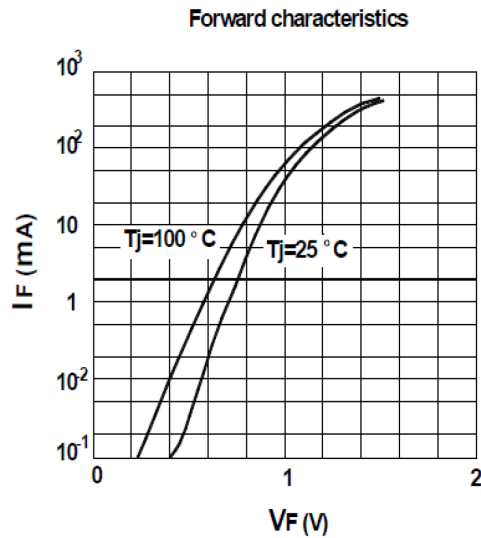
## Features

- SOD 123 package
- Fast switching
- Reverse voltage: 100 Volts
- Forward current: 150mA

## Absolute Maximum Ratings (T<sub>A</sub> = 25°C)

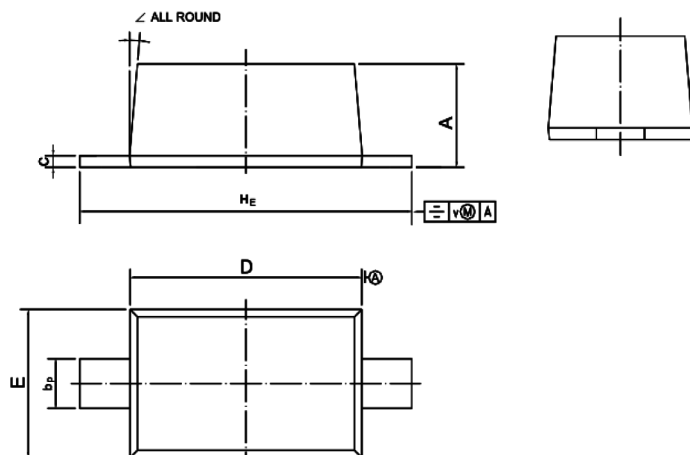
| Parameter                                                                                                                                                                  | Symbol             | Value                       | Unit                 |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|-----------------------------|----------------------|
| Peak Reverse Voltage                                                                                                                                                       | V <sub>RM</sub>    | 100                         | V                    |
| Reverse Voltage                                                                                                                                                            | V <sub>R</sub>     | 75                          |                      |
| Reverse Breakdown Voltage @I <sub>R</sub> =1μA                                                                                                                             | V <sub>(BR)R</sub> | 75                          |                      |
| Average Rectified Forward Current                                                                                                                                          | I <sub>F(AV)</sub> | 150                         | mA                   |
| Non-repetitive Peak Forward Surge Current @t=1s<br>@t=1ms<br>@t=1μs                                                                                                        | I <sub>FSM</sub>   | 0.5<br>1<br>4               | A                    |
| Power Dissipation                                                                                                                                                          | P <sub>tot</sub>   | 400                         | mW                   |
| Thermal Resistance from Junction to Ambient Air                                                                                                                            | R <sub>θJA</sub>   | 312                         | °C/W                 |
| Junction Temperature                                                                                                                                                       | T <sub>J</sub>     | -55 to +150                 | °C                   |
| Storage Temperature                                                                                                                                                        | T <sub>STG</sub>   | -55 to +150                 |                      |
| Max. Forward Voltage @ I <sub>F</sub> = 1mA<br>@ I <sub>F</sub> = 10mA<br>@ I <sub>F</sub> = 50 mA<br>@ I <sub>F</sub> = 150 mA                                            | V <sub>F</sub>     | 0.715<br>0.855<br>1<br>1.25 | V                    |
| Max. Peak Reverse Current @V <sub>R</sub> = 75V<br>@V <sub>R</sub> = 20V<br>@V <sub>R</sub> = 75V, T <sub>J</sub> = 150°C<br>@V <sub>R</sub> = 25V, T <sub>J</sub> = 150°C | I <sub>R</sub>     | 1<br>25<br>50<br>30         | μA<br>nA<br>μA<br>μA |
| Total Capacitance @V <sub>R</sub> = 0V, f = 1 MHz                                                                                                                          | C <sub>T</sub>     | 2                           | pF                   |
| Reverse Recovery Time @I <sub>rr</sub> = 0.1 X I <sub>R</sub> , I <sub>F</sub> = I <sub>R</sub> = 10mA, R <sub>L</sub> = 100Ω                                              | t <sub>rr</sub>    | 4                           | ns                   |

## Rating and Characteristic Curves



## Diagram

### SOD-123



| Unit | A            | bp         | C              | D          | E            | HE           | v   | ∠  |
|------|--------------|------------|----------------|------------|--------------|--------------|-----|----|
| mm   | 1.15<br>1.05 | 0.6<br>0.5 | 0.135<br>0.127 | 2.7<br>2.6 | 1.65<br>1.55 | 3.85<br>3.55 | 0.2 | 5° |

## Part Number Table

| Description                                          | Part Number |
|------------------------------------------------------|-------------|
| Small Signal Diode, Single, 100V, 150mA, 1V, 4ns, 2A | 1N4148W     |

Dimensions : Millimetres

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