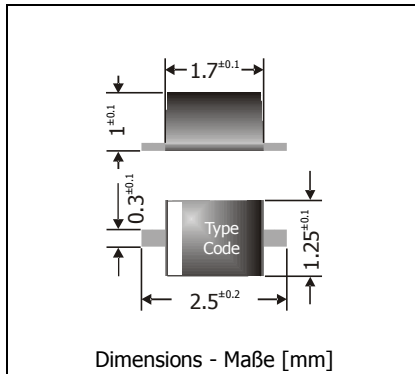


**1N4148WS**
**Surface Mount Small Signal Diodes**  
**Kleinsignal-Dioden für die Oberflächenmontage**

Version 2011-09-29



Power dissipation – Verlustleistung

200 mW

 Repetitive peak reverse voltage  
 Periodische Spitzensperrspannung

75 V

Plastic case – Kunststoffgehäuse

~ SOD-323

Weight approx. – Gewicht ca.

0.005 g

 Plastic material has UL classification 94V-0  
 Gehäusematerial UL94V-0 klassifiziert

 Standard packaging taped and reeled  
 Standard Lieferform gegurtet auf Rolle
**Maximum ratings (T<sub>A</sub> = 25°C)****Grenzwerte (T<sub>A</sub> = 25°C)**

|                                                                    |                                                                                       | <b>1N4148WS</b>             |
|--------------------------------------------------------------------|---------------------------------------------------------------------------------------|-----------------------------|
| Power dissipation – Verlustleistung                                | P <sub>tot</sub>                                                                      | 200 mW <sup>1)</sup>        |
| Max. average forward current – Dauergrenzstrom (dc)                | I <sub>FAV</sub>                                                                      | 150 mA <sup>1)</sup>        |
| Repetitive peak forward current – Periodischer Spitzenstrom        | I <sub>FRM</sub>                                                                      | 300 mA <sup>1)</sup>        |
| Non repetitive peak forward surge current<br>Stoßstrom-Grenzwert   | t <sub>p</sub> ≤ 1 s<br>I <sub>FSM</sub><br>t <sub>p</sub> ≤ 1 µs<br>I <sub>FSM</sub> | 350 mA <sup>1)</sup><br>1 A |
| Repetitive peak reverse voltage – Periodische Spitzensperrspannung | V <sub>RRM</sub>                                                                      | 75 V                        |
| Non repetitive peak reverse voltage – Stoßspitzensperrspannung     | V <sub>RSM</sub>                                                                      | 100 V <sup>2)</sup>         |
| Junction temperature – Sperrschichttemperatur                      | T <sub>j</sub>                                                                        | -55...+150°C                |
| Storage temperature – Lagerungstemperatur                          | T <sub>s</sub>                                                                        | -55...+150°C                |

**Characteristics (T<sub>j</sub> = 25°C)****Kennwerte (T<sub>j</sub> = 25°C)**

|                                                                                                                                |                                                                            |                                  |                                 |
|--------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------|----------------------------------|---------------------------------|
| Forward voltage<br>Durchlass-Spannung                                                                                          | I <sub>F</sub> = 1 mA<br>I <sub>F</sub> = 10 mA<br>I <sub>F</sub> = 150 mA | V <sub>F</sub><br>V <sub>F</sub> | < 0.75 V<br>< 1.0 V<br>< 1.25 V |
| Leakage current – Sperrstrom                                                                                                   | V <sub>R</sub> = 20 V<br>V <sub>R</sub> = 75 V                             | I <sub>R</sub><br>I <sub>R</sub> | < 25 nA<br>< 1 µA               |
| Leakage current – Sperrstrom, T <sub>j</sub> = 125°C                                                                           | V <sub>R</sub> = 20 V<br>V <sub>R</sub> = 75 V                             | I <sub>R</sub><br>I <sub>R</sub> | < 30 µA<br>< 50 µA              |
| Max. junction capacitance – Max. Sperrschichtkapazität<br>V <sub>R</sub> = 0 V, f = 1 MHz                                      |                                                                            | C <sub>T</sub>                   | 2 pF                            |
| Reverse recovery time – Sperrverzug<br>I <sub>F</sub> = 10 mA über/through I <sub>R</sub> = 10 mA bis/to I <sub>R</sub> = 1 mA |                                                                            | t <sub>rr</sub>                  | < 4 ns                          |
| Thermal resistance junction to ambient air<br>Wärmewiderstand Sperrschicht – umgebende Luft                                    |                                                                            | R <sub>thA</sub>                 | < 620 K/W <sup>1)</sup>         |

1 Mounted on P.C. board with 3 mm<sup>2</sup> copper pad at each terminal  
 Montage auf Leiterplatte mit 3 mm<sup>2</sup> Kupferbelag (Lötpad) an jedem Anschluss

2 Tested with pulses t<sub>p</sub> = 300 µs, duty cycle ≤ 2% – Gemessen mit Impulsen t<sub>p</sub> = 300 µs, Schaltverhältnis ≤ 2%

|                                                                                                                   |                                                                                     |
|-------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Marking - Stempelung                                                                                              | 1N4148WS = W2                                                                       |
| These diodes are also available in other case styles<br>Diese Dioden sind auch in anderen Gehäuseformen lieferbar | DO-35 = 1N4148<br>MiniMELF = LL4148<br>Q-MiniMELF = LS4148<br>Q-MicroMELF = MCL4148 |

