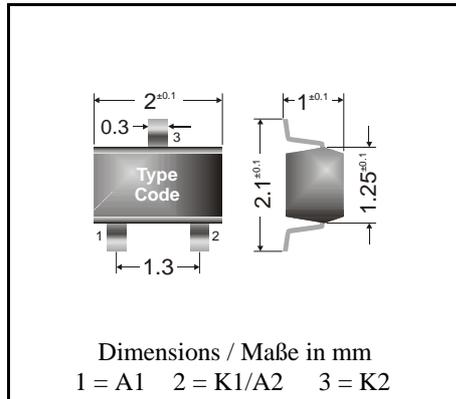


**Surface mount Small Signal Double-Diodes**  
**Kleinsignal-Doppel-Dioden für die Oberflächenmontage**

Version 2004-04-09



|  |         |
|--|---------|
| Power dissipation – Verlustleistung    | 200 mW  |
| Repetitive peak reverse voltage        | 70 V    |
| Periodische Spitzensperrspannung       |         |
| Plastic case                           | SOT-323 |
| Kunststoffgehäuse                      |         |
| Weight approx. – Gewicht ca.           | 0.01 g  |
| 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)**

| per diode / pro Diode   |  | <b>BAV99W</b>        |
|---|--|----------------------|
| Power dissipation – Verlustleistung                                 | P <sub>tot</sub>   | 200 mW <sup>1)</sup> |
| Max. average forward current (dc)<br>Dauergrenzstrom                | I <sub>FAV</sub>   | 200 mA <sup>1)</sup> |
| Repetitive peak forward current<br>Periodischer Spitzenstrom        | I <sub>FRM</sub>   | 300 mA <sup>1)</sup> |
| Peak forward surge current<br>Stoßstrom-Grenzwert                   | t <sub>p</sub> ≤ 1 s<br>t <sub>p</sub> ≤ 1 ms<br>t <sub>p</sub> ≤ 1 μs | 0.5 A<br>1 A<br>2 A  |
| Repetitive peak reverse voltage<br>Periodische Spitzensperrspannung | V <sub>RRM</sub>   | 70 V                 |
| Junction temperature – Sperrschichttemperatur                       | T <sub>j</sub>   | 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 - Durchlaßspannung <sup>2)</sup> | I <sub>F</sub> = 1 mA   | V <sub>F</sub>         | < 715 mV       |         |
|  | I <sub>F</sub> = 10 mA  | V <sub>F</sub>         | < 855 mV       |         |
|  | I <sub>F</sub> = 50 mA  | V <sub>F</sub>         | < 1 V          |         |
|  | I <sub>F</sub> = 150 mA | V <sub>F</sub>         | < 1.25 V       |         |
| Leakage current - Sperrstrom <sup>2)</sup>       | V <sub>R</sub> = 25 V   | T <sub>j</sub> = 25°C  | I <sub>R</sub> | < 30 nA |
|  | V <sub>R</sub> = 70 V   |                        | I <sub>R</sub> | 2.5 μA  |
|  | V <sub>R</sub> = 25 V   | T <sub>j</sub> = 150°C | I <sub>R</sub> | < 30 μA |
|  | V <sub>R</sub> = 70 V   |                        | I <sub>R</sub> | < 50 μA |

<sup>1)</sup> Mounted on P.C. board with 3 mm<sup>2</sup> copper pad at each terminal

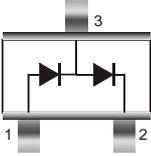
Montage auf Leiterplatte mit 3 mm<sup>2</sup> Kupferbelag (Löt-pad) an jedem Anschluß

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

**Characteristics ( $T_j = 25^\circ\text{C}$ )**

**Kennwerte ( $T_j = 25^\circ\text{C}$ )**

|  |           |                       |
|--|-----------|-----------------------|
| Max. junction Capacitance – Max. Sperrschichtkapazität<br>$V_R = 0\text{ V}, f = 1\text{ MHz}$                               | $C_T$     | 1.5 pF                |
| Reverse recovery time - Sperrverzug<br>$I_F = 10\text{ mA}$ über / through $I_R = 10\text{ mA}$ bis / to $I_R = 1\text{ mA}$ | $t_{rr}$  | < 4 ns                |
| Thermal resistance junction to ambient air<br>Wärmewiderstand Sperrschicht – umgebende Luft                                  | $R_{thA}$ | 620 K/W <sup>1)</sup> |

| Outline – Gehäuse   | Pinning –<br>Anschlußbelegung   | Marking – Stempelung           |
|---|---|--------------------------------|
|  | Double diode, series<br>connection<br>Doppeldiode,<br>Reihenschaltung | BAV99W = A7<br>or / oder = KJG |

<sup>1)</sup> 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 (Löt-pad) an jedem Anschluß