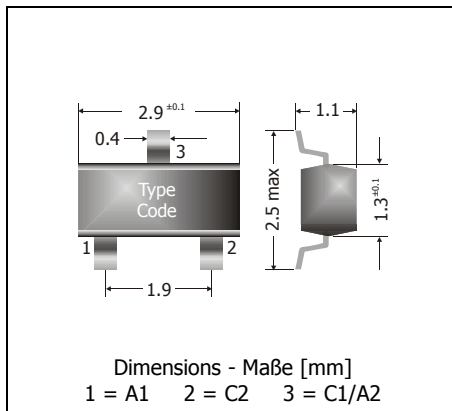


BAV99

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

Version 2006-07-11



| | |
|---|--------------------|
| Power dissipation – Verlustleistung | 310 mW |
| Repetitive peak reverse voltage Periodische Spitzensperrspannung | 70 V |
| Plastic case Kunststoffgehäuse | SOT-23 (TO-236) |
| Weight approx. – Gewicht ca. | 0.01 g |
| Plastic material has UL classification 94V-0 Gehäusematerial UL94V-0 klassifiziert | |
| Standard packaging taped and reeled Standard Lieferform gegurtet auf Rolle | |



Maximum ratings ($T_A = 25^\circ\text{C}$)

Grenzwerte ($T_A = 25^\circ\text{C}$)

| per diode / pro Diode | BAV99 | |
|--|---|---|
| Power dissipation – Verlustleistung ¹⁾ | P_{tot} | 310 mW ²⁾ |
| Max. average forward current – Dauergrenzstrom (dc) | I_{FAV} | 200 mA ²⁾ |
| Repetitive peak forward current – Periodischer Spitzenstrom | I_{FRM} | 300 mA ²⁾ |
| Non repetitive peak forward surge current Stoßstrom-Grenzwert | $t_p \leq 1 \text{ s}$ $t_p \leq 1 \text{ ms}$ $t_p \leq 1 \mu\text{s}$ | I_{FSM} 0.5 A I_{FSM} 1 A I_{FSM} 2 A |
| Repetitive peak reverse voltage – Periodische Spitzensperrspannung | V_{RRM} | 85 V |
| Reverse voltage – Sperrspannung (dc) | V_R | 70 V |
| Junction temperature – Sperrschichttemperatur | T_j | -55...+150°C |
| Storage temperature – Lagerungstemperatur | T_s | -55...+150°C |

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

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

| | | | |
|---|--|-------|---------------------|
| Forward voltage Durchlass-Spannung | $I_F = 1 \text{ mA}$ | V_F | < 715 mV |
| | $I_F = 10 \text{ mA}$ | V_F | < 855 mV |
| | $I_F = 50 \text{ mA}$ | V_F | < 1.0 V |
| | $I_F = 150 \text{ mA}$ | V_F | < 1.25 V |
| Leakage current ³⁾ Sperrstrom | $T_j = 25^\circ\text{C}$ $V_R = 25 \text{ V}$ | I_R | < 30 nA |
| | $T_j = 25^\circ\text{C}$ $V_R = 70 \text{ V}$ | I_R | < 2.5 μA |
| | $T_j = 150^\circ\text{C}$ $V_R = 25 \text{ V}$ | I_R | < 30 μA |
| | $T_j = 150^\circ\text{C}$ $V_R = 70 \text{ V}$ | I_R | < 50 μA |

1 Total power dissipation of both diodes – Summe der Verlustleistungen beider Dioden

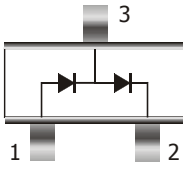
2 Mounted on P.C. board with 3 mm² copper pad at each terminal
Montage auf Leiterplatte mit 3 mm² Kupferbelag (Lötpad) an jedem Anschluss

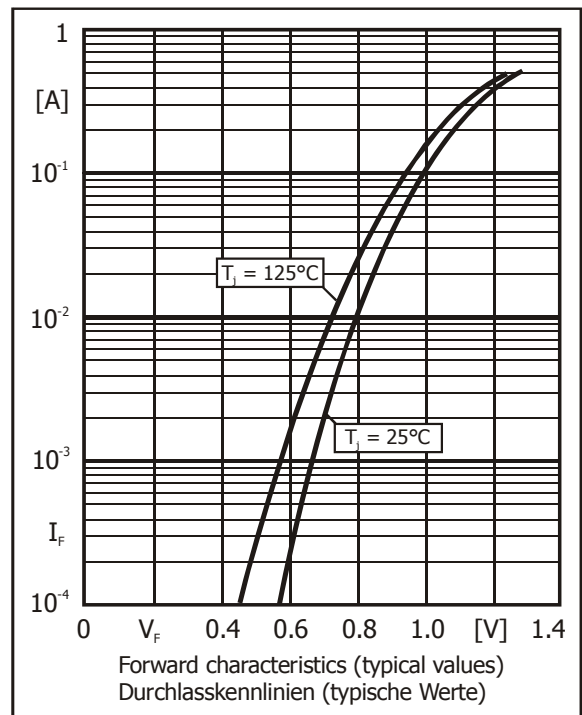
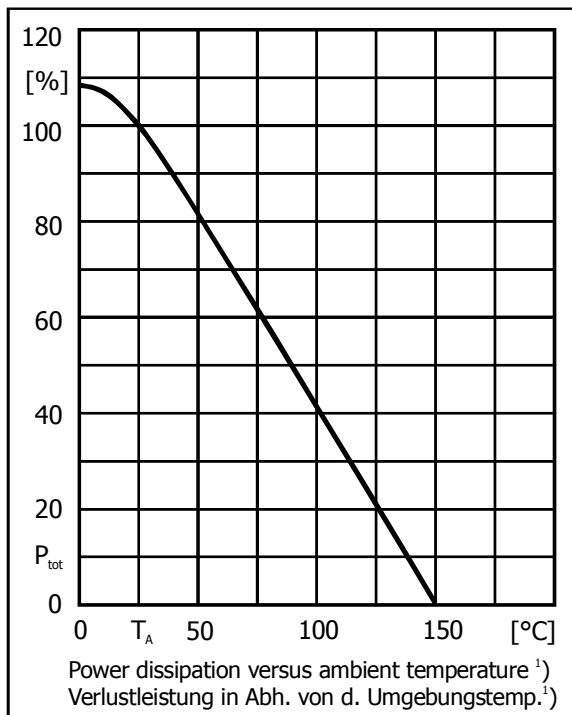
3 Tested with pulses $t_p = 300 \mu\text{s}$, duty cycle $\leq 2\%$ – Gemessen mit Impulsen $t_p = 300 \mu\text{s}$, Schaltverhältnis $\leq 2\%$

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

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

| | | |
|--|-----------|-------------------------|
| Max. junction capacitance – Max. Sperrschichtkapazität $V_R = 0\text{ V}, f = 1\text{ MHz}$ | C_T | 1.5 pF |
| Reverse recovery time – Sperrverzug $I_F = 10\text{ mA}$ über/through $I_R = 10\text{ mA}$ bis/to $I_R = 1\text{ mA}$ | t_{rr} | < 4 ns |
| Thermal resistance junction to ambient air Wärmewiderstand Sperrschicht – umgebende Luft | R_{thA} | < 400 K/W ¹⁾ |

| Pinning – Anschlussbelegung | Marking – Stempelung |
|--|----------------------|
|  <p>Double diode, series connection Doppeldiode, Reihenschaltung</p> <p>1 = A1 2 = C2 3 = C1/A2</p> | BAV99 = A7 |
| Other available configurations – Andere lieferbare Konfigurationen | |
| Single diode – einzelne Diode | BAL99 |
| Double diode, common cathode – Doppeldiode, gemeinsame Kathode | BAV70 |
| Double diode, common anode – Doppeldiode, gemeinsame Anode | BAW56 |



1 Mounted on P.C. board with 3 mm² copper pad at each terminal
Montage auf Leiterplatte mit 3 mm² Kupferbelag (Löt-pad) an jedem Anschluss