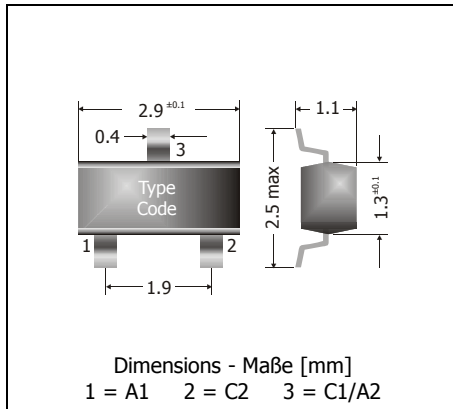


BAV99

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	$t_p \leq 1 \text{ s}$	I_{FSM}	0.5 A
	$t_p \leq 1 \text{ ms}$	I_{FSM}	1 A
	$t_p \leq 1 \mu\text{s}$	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

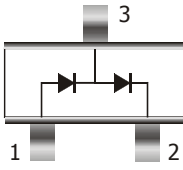
2 Mounted on P.C. board with 3 mm² copper pad at each terminal
Montage auf Leiterplatte mit 3 mm² Kupferbelag (Lötpad) an jedem Anschluss

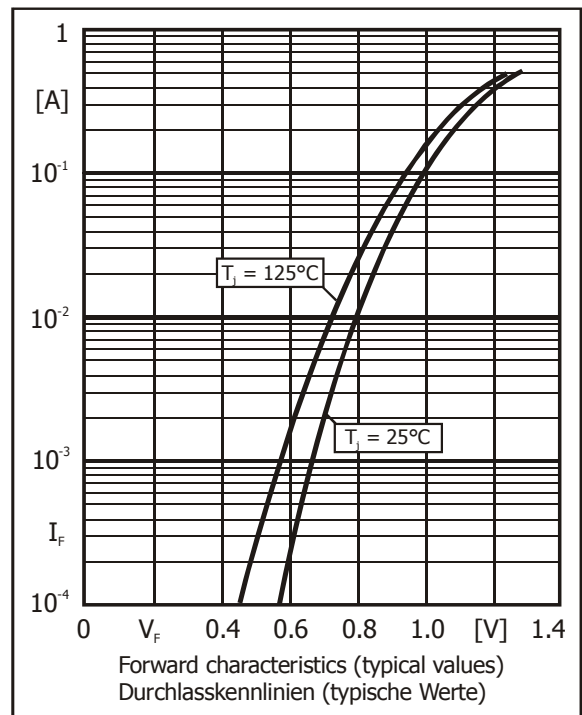
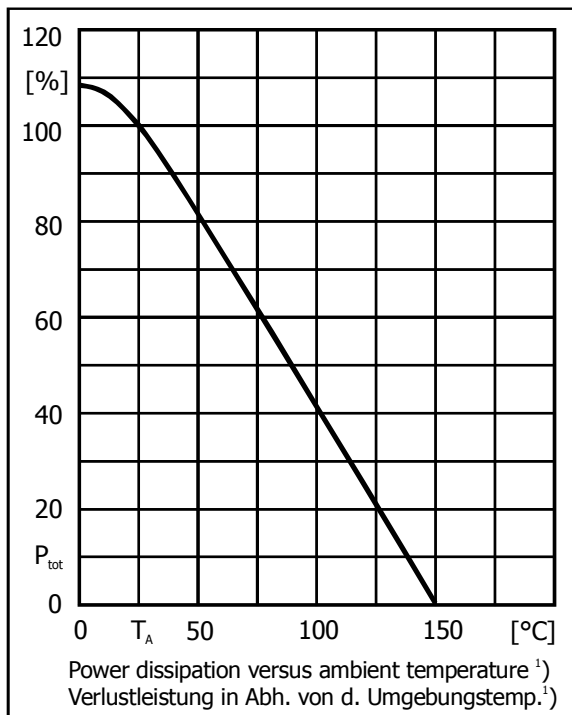
3 Tested with pulses $t_p = 300 \mu\text{s}$, duty cycle $\leq 2\%$ – Gemessen mit Impulsen $t_p = 300 \mu\text{s}$, Schaltverhältnis $\leq 2\%$

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