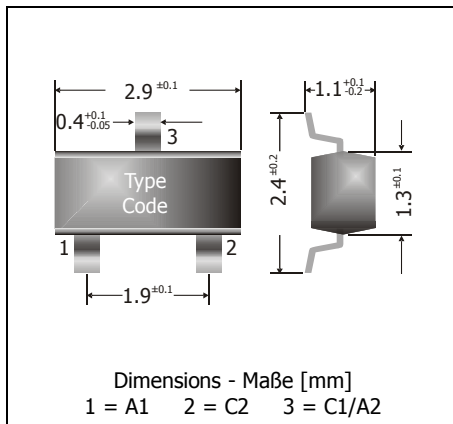


BAV99

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

Version 2015-05-12



Power dissipation – Verlustleistung

310 mW

Repetitive peak reverse voltage

70 V

Periodische Spitzensperrspannung

Plastic case

SOT-23

Kunststoffgehäuse

(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

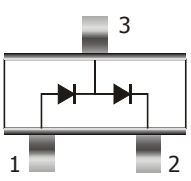
1 Total power dissipation of both diodes – Summe der Verlustleistungen beider Dioden

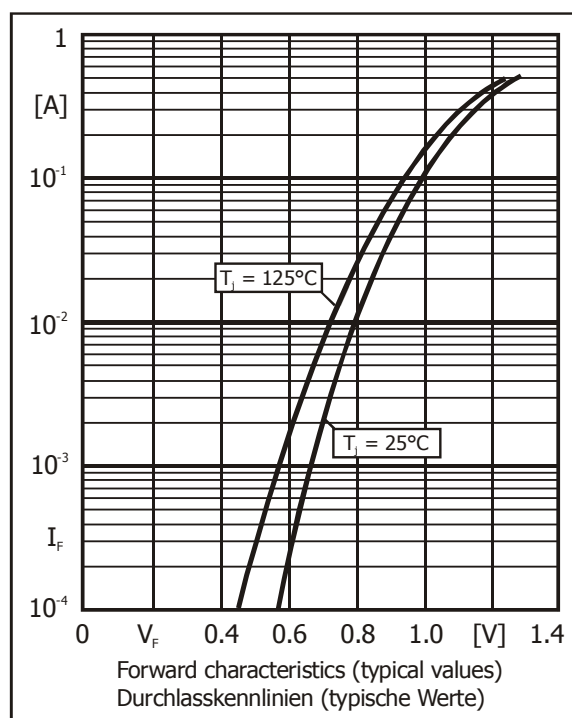
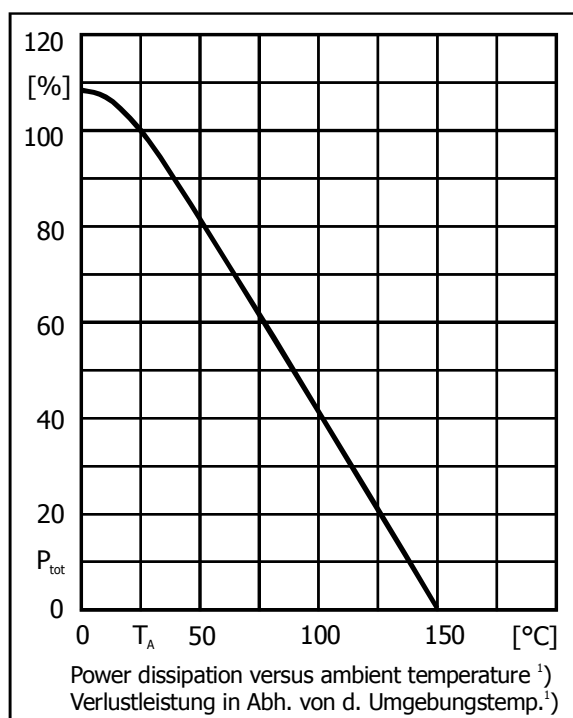
2 Mounted on P.C. board with 3 mm² copper pad at each terminal
Montage auf Leiterplatte mit 3 mm² Kupferbelag (Lötpad) an jedem Anschluss

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 – Sperrverzögerung $I_F = 10\text{ mA}$ 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
		BAV99 = A7
Double diode, series connection Doppeldiode, Reihenschaltung 1 = A1 2 = C2 3 = C1/A2		
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