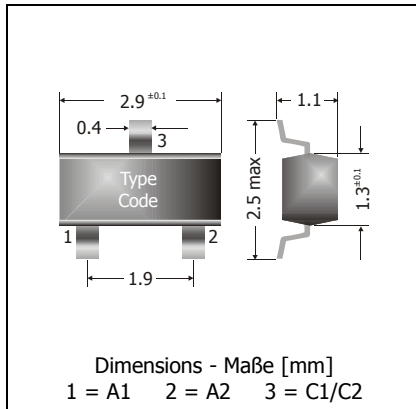



BAV70

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

Version 2005-9-28



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		BAV70	
Power dissipation – Verlustleistung ¹⁾		P_{tot}	310 mW ²⁾
Max. average forward current (dc) Dauergrenzstrom		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 1 A 2 A
Repetitive peak reverse voltage Periodische Spitzensperrspannung		V_{RRM}	70 V
Junction temperature – Sperrschichttemperatur Storage temperature – Lagerungstemperatur		T_j T_s	-55...+150°C -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	< 5 μA
	$T_j = 150^\circ\text{C}$	$V_R = 25 \text{ V}$	I_R	< 60 μA
		$V_R = 70 \text{ V}$	I_R	< 100 μA

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

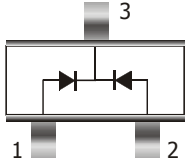
2 Mounted on P.C. board with 3 mm² copper pad at each terminal
Montage auf Leiterplatte mit 3 mm² Kupferbelag (Löt-pad) an jedem Anschluss

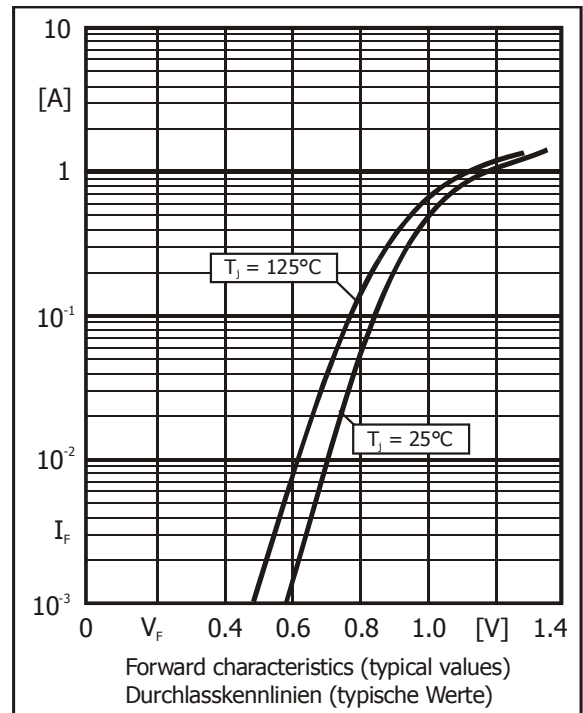
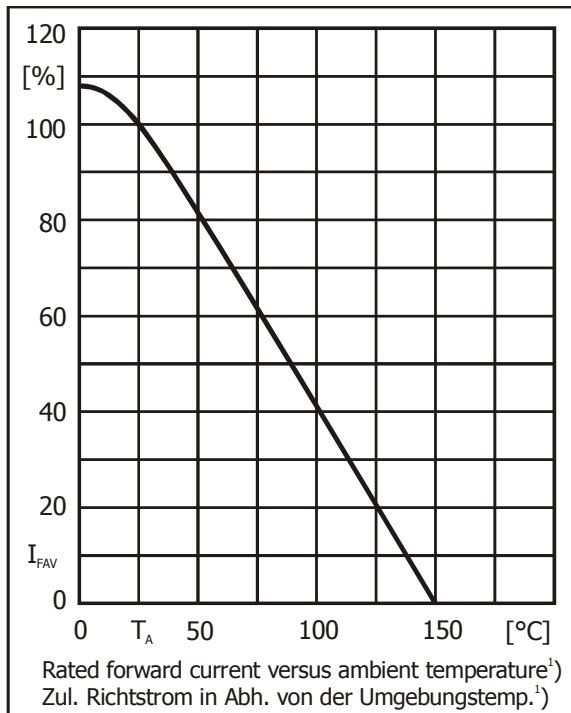
3 Tested with pulses $t_p = 300 \mu\text{s}$, duty cycle $\leq 2\%$ – Gemessen mit Impulsen $t_p = 300 \mu\text{s}$, Schaltverhältnis $\leq 2\%$

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}	< 6 ns
Thermal resistance junction to ambient air Wärmewiderstand Sperrschicht – umgebende Luft	R_{thA}	< 420 K/W ¹⁾

Pinning – Anschlussbelegung	Marking – Stempelung
 <p>Double diode, common cathode Doppeldiode, gemeinsame Kathode</p> <p>1 = A1 2 = A2 3 = C1/C2</p>	<p>BAV70 = A4</p>



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