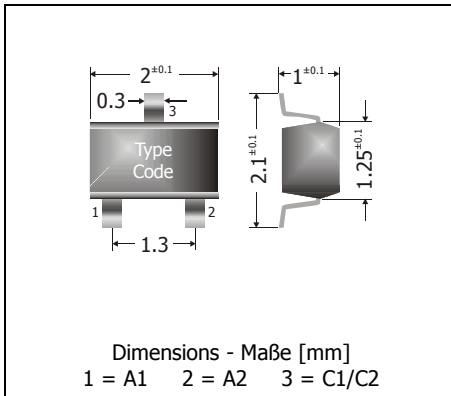


BAV70W

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

Version 2005-9-28



Power dissipation Verlustleistung	200 mW
Repetitive peak reverse voltage Periodische Spitzensperrspannung	70 V
Plastic case Kunststoffgehäuse	SOT-323
Weight approx. – Gewicht ca.	0.01 g
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	BAV70W
Power dissipation – Verlustleistung ¹⁾	P_{tot}	200 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 I_{FSM} 1 A I_{FSM} 2 A
Repetitive peak reverse voltage Periodische Spitzensperrspannung	V_{RRM}	70 V
Max. operating junction temperature – Max. Sperrschichttemperatur	T_j	150°C
Storage temperature – Lagerungstemperatur	T_s	- 55...+ 150°C

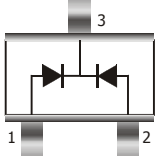
Characteristics ($T_j = 25^\circ\text{C}$)	Kennwerte ($T_j = 25^\circ\text{C}$)			
Forward voltage Durchlass-Spannung	$I_F = 1 \text{ mA}$ $I_F = 10 \text{ mA}$ $I_F = 50 \text{ mA}$ $I_F = 150 \text{ mA}$	V_F V_F V_F V_F		< 715 mV < 855 mV < 1.0 V < 1.25 V
Leakage current ³⁾ Sperrstrom	$V_R = 70 \text{ V}$	$T_j = 25^\circ\text{C}$	I_R	< 5 μA
	$V_R = 25 \text{ V}$ $V_R = 70 \text{ V}$	$T_j = 150^\circ\text{C}$	I_R I_R	< 60 μA < 100 μA

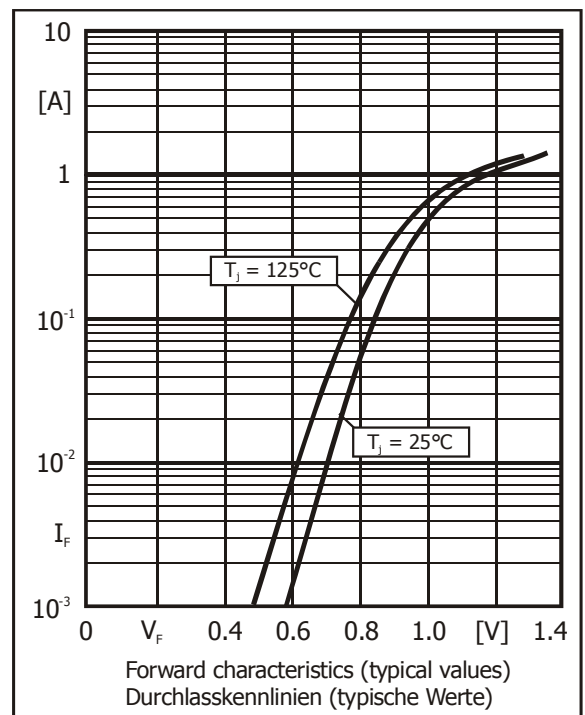
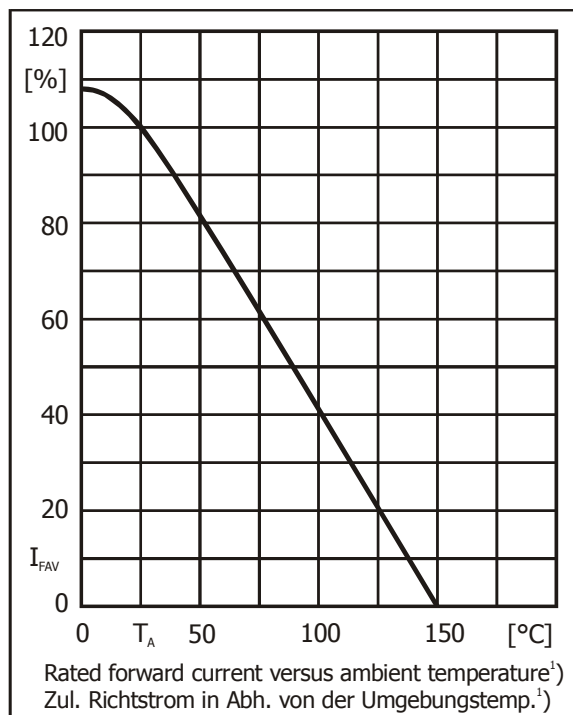
1 Total power dissipation of both diodes – Summe der Verlustleistungen beider Dioden

2 Mounted on P.C. board with 3 mm² copper pad at each terminal
Montage auf Leiterplatte mit 3 mm² Kupferbelag (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}	< 6 ns
Thermal resistance junction to ambient air Wärmewiderstand Sperrschicht – umgebende Luft	R_{thA}	< 620 K/W ¹⁾

Outline – Gehäuse	Pinning – Anschlussbelegung	Marking – Stempelung
	Double diode, common cathode Doppeldiode, gemeins. Kathode 1 = A1 2 = A2 3 = C1/C2	BAV70W = A4 or /oder = KJA



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