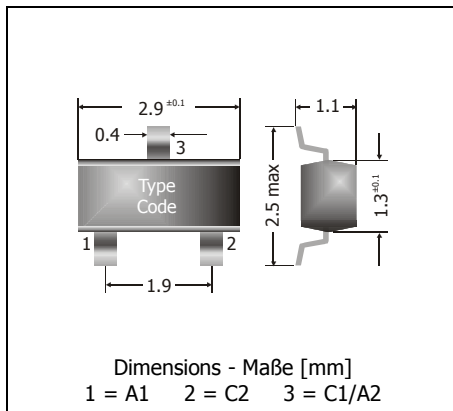


BAV199

Surface Mount Low Leakage Double-Diodes Doppel-Dioden mit niedrigem Sperrstrom für die Oberflächenmontage

Version 2012-09-03



Power dissipation – Verlustleistung	250 mW
Repetitive peak reverse voltage Periodische Spitzensperrspannung	85 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	BAV199	
Power dissipation – Verlustleistung ¹⁾	P_{tot}	250 mW ²⁾
Max. average forward current – Dauergrenzstrom (dc)	I_{FAV}	140 mA ²⁾
Repetitive peak forward current – Periodischer Spitzenstrom	I_{FRM}	500 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} 4 A
Repetitive peak reverse voltage – Periodische Spitzensperrspannung	V_{RRM}	85 V
Reverse voltage – Sperrspannung (dc)	V_R	85 V
Junction temperature – Sperrschichttemperatur	T_j	-65...+150°C
Storage temperature – Lagerungstemperatur	T_s	-65...+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	< 900 mV < 1 V < 1.1 V < 1.25 V
Leakage current ³⁾ Sperrstrom	$T_j = 25^\circ\text{C}$ $V_R = 75 \text{ V}$ $T_j = 150^\circ\text{C}$ $V_R = 75 \text{ V}$	I_R I_R	< 5 nA < 80 nA

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

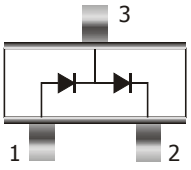
2 Mounted on P.C. board with 3 mm² copper pad at each terminal
Montage auf Leiterplatte mit 3 mm² Kupferbelag (Löt-pad) an jedem Anschluss

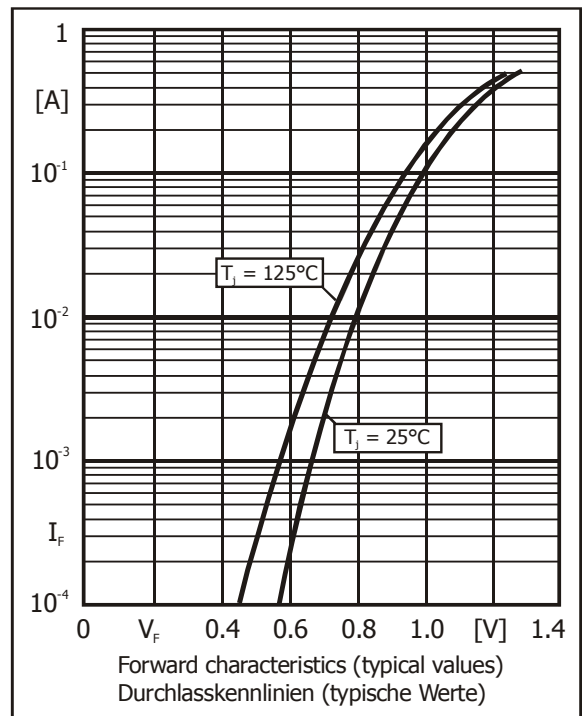
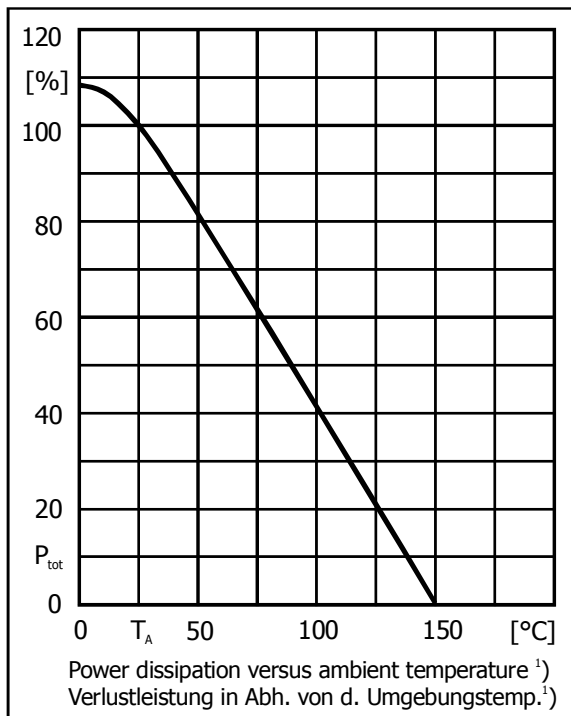
3 Tested with pulses $t_p = 300 \mu\text{s}$, duty cycle $\leq 2\%$ – Gemessen mit Impulsen $t_p = 300 \mu\text{s}$, Schaltverhältnis $\leq 2\%$

Characteristics (T_j = 25°C)

Kennwerte (T_j = 25°C)

Max. junction capacitance – Max. Sperrschichtkapazität V _R = 0 V, f = 1 MHz	C _T	2 pF
Reverse recovery time – Sperrverzögerung I _F = 10 mA über/through I _R = 10 mA bis/to I _R = 1 mA	t _{rr}	< 3 ns
Thermal resistance junction to ambient air Wärmewiderstand Sperrschicht – umgebende Luft	R _{thA}	< 500 K/W ¹⁾

Pinning – Anschlussbelegung		Marking – Stempelung
	Double diode, series connection Doppeldiode, Reihenschaltung 1 = A1 2 = C2 3 = C1/A2	BAV199 = PX



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