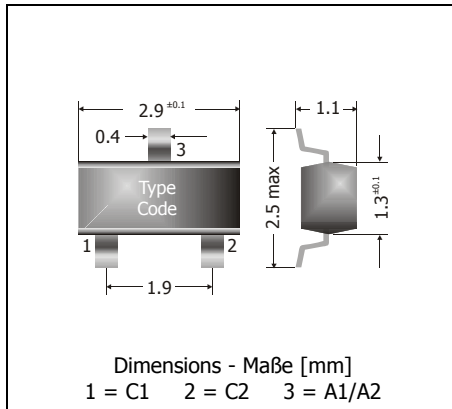


## BAW56

**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	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	BAW56	
Power dissipation – Verlustleistung <sup>1)</sup>	$P_{\text{tot}}$	310 mW <sup>2)</sup>
Max. average forward current – Dauergrenzstrom (dc)	$I_{\text{FAV}}$	250 mA <sup>2)</sup>
Repetitive peak forward current – Periodischer Spitzenstrom	$I_{\text{FRM}}$	450 mA <sup>2)</sup>
Non repetitive peak forward surge current Stoßstrom-Grenzwert	$t_p \leq 1 \text{ s}$	$I_{\text{FSM}}$ 0.5 A
	$t_p \leq 1 \text{ ms}$	$I_{\text{FSM}}$ 1 A
	$t_p \leq 1 \mu\text{s}$	$I_{\text{FSM}}$ 2 A
Repetitive peak reverse voltage – Periodische Spitzensperrspannung	$V_{\text{RRM}}$	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 <sup>3)</sup> Sperrstrom	$T_j = 25^\circ\text{C}$	$V_R = 70 \text{ V}$	$I_R$ < 100 nA
	$T_j = 150^\circ\text{C}$	$V_R = 25 \text{ V}$	$I_R$ < 30 $\mu\text{A}$
	$T_j = 150^\circ\text{C}$	$V_R = 70 \text{ V}$	$I_R$ < 50 $\mu\text{A}$

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

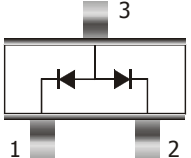
2 Mounted on P.C. board with 3 mm<sup>2</sup> copper pad at each terminal  
Montage auf Leiterplatte mit 3 mm<sup>2</sup> Kupferbelag (Lötpad) an jedem Anschluss

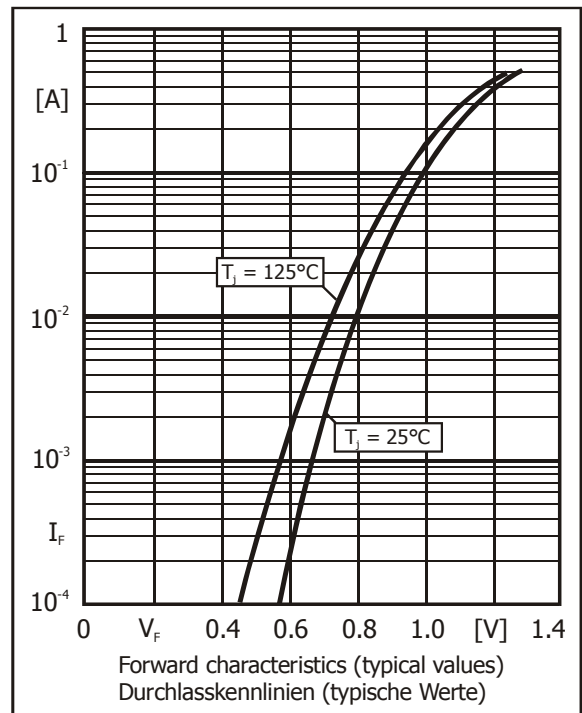
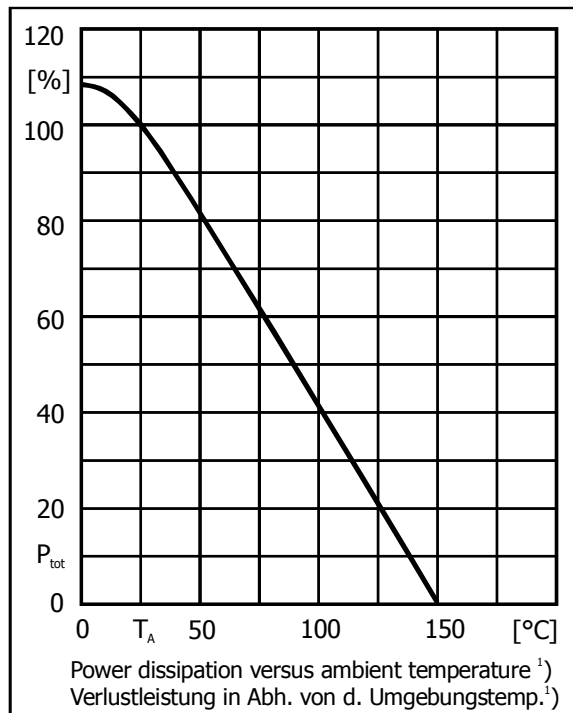
3 Tested with pulses  $t_p = 300 \mu\text{s}$ , duty cycle  $\leq 2\%$  – Gemessen mit Impulsen  $t_p = 300 \mu\text{s}$ , Schaltverhältnis  $\leq 2\%$

**Characteristics (T<sub>j</sub> = 25°C)**

**Kennwerte (T<sub>j</sub> = 25°C)**

Max. junction capacitance – Max. Sperrschichtkapazität V <sub>R</sub> = 0 V, f = 1 MHz	C <sub>T</sub>	1.5 pF
Reverse recovery time – Sperrverzögerung I <sub>F</sub> = 10 mA über/through I <sub>R</sub> = 10 mA bis/to I <sub>R</sub> = 1 mA	t <sub>rr</sub>	< 6 ns
Thermal resistance junction to ambient air Wärmewiderstand Sperrschicht – umgebende Luft	R <sub>thA</sub>	< 400 K/W <sup>1)</sup>

Pinning – Anschlussbelegung		Marking – Stempelung
	Double diode, common anode Doppeldiode, gemeinsame Anode  1 = C1    2 = C2    3 = A1/A2	BAW56 = A1 or/oder JD
Other available configurations – Andere lieferbare Konfigurationen		
Single diode – einzelne Diode		BAL99
Double diode, series connection – Doppeldiode, Reihenschaltung		BAV99
Double diode, common cathode – Doppeldiode, gemeinsame Kathode		BAV70



1 Mounted on P.C. board with 3 mm<sup>2</sup> copper pad at each terminal  
 Montage auf Leiterplatte mit 3 mm<sup>2</sup> Kupferbelag (Löt-pad) an jedem Anschluss