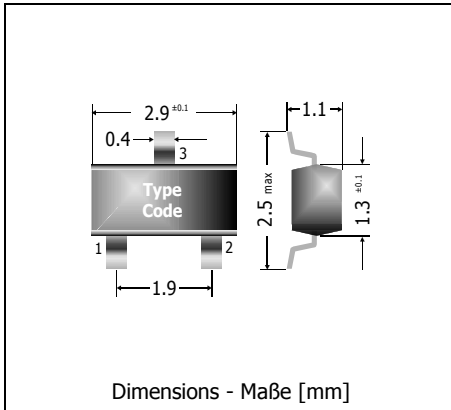


BAS31, BAS35

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

Version 2011-10-11



Power dissipation – Verlustleistung	350 mW
Repetitive peak reverse voltage Periodische Spitzensperrspannung	120 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	BAS31, BAS35	
Power dissipation – Verlustleistung ¹⁾	P_{tot}	350 mW ²⁾
Max. average forward current (dc) Dauergrenzstrom	I_{FAV}	200 mA ²⁾
Repetitive peak forward current Periodischer Spitzenstrom	I_{FRM}	600 mA ²⁾
Non repetitive peak forward surge current Stoßstrom-Grenzwert	$t_p \leq 1 \text{ s}$ $t_p \leq 1 \mu\text{s}$	I_{FSM} 1 A I_{FSM} 2 A
Repetitive peak reverse voltage Periodische Spitzensperrspannung	V_{RRM}	120 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 ³⁾ Durchlass-Spannung ³⁾	$I_F = 10 \text{ mA}$	V_F	< 750 mV
	$I_F = 50 \text{ mA}$	V_F	< 840 mV
	$I_F = 100 \text{ mA}$	V_F	< 900 mV
	$I_F = 200 \text{ mA}$	V_F	< 1.00 V
	$I_F = 400 \text{ mA}$	V_F	< 1.25 V
Leakage current Sperrstrom	$T_j = 25^\circ\text{C}$ $V_R = 90 \text{ V}$	I_R	< 100 nA
	$T_j = 150^\circ\text{C}$ $V_R = 90 \text{ V}$	I_R	< 100 μA

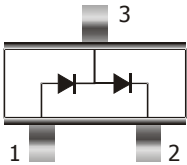
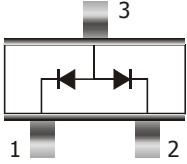
1 Total power dissipation of both diodes – Summe der Verlustleistungen beider Dioden

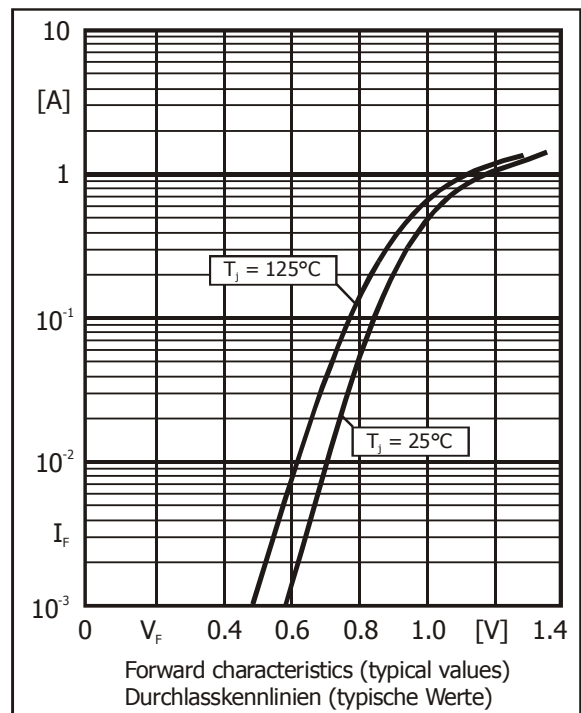
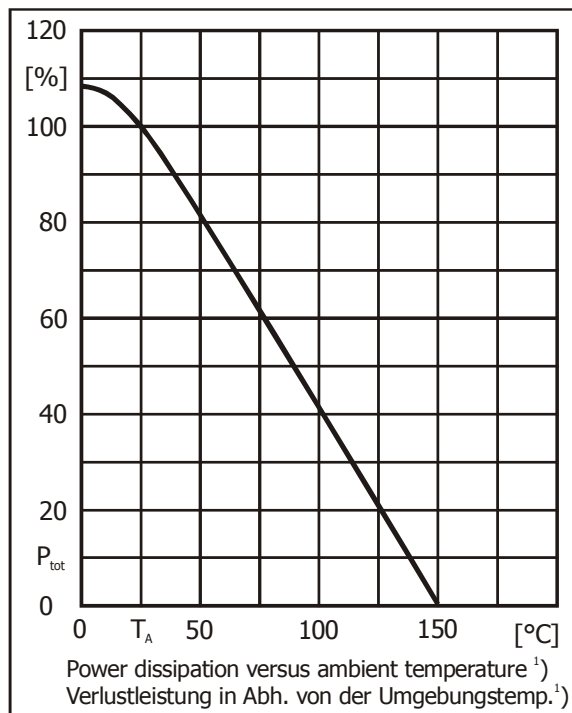
2 Mounted on P.C. board with 3 mm² copper pad at each terminal
Montage auf Leiterplatte mit 3 mm² Kupferbelag (Löt-pad) an jedem Anschluss

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	35 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}	< 50 ns
Thermal resistance junction to ambient air Wärmewiderstand Sperrschicht – umgebende Luft	R_{thA}	< 400 K/W ¹⁾

Outline – Gehäuse	Pinning – Anschlussbelegung	Marking – Stempelung
	Dual diode, series connection Doppeldiode, Reihenschaltung 1 = A1 2 = K2 3 = K1/A2	BAS31 = L21
	Dual diode, common anode Doppeldiode, gemeinsame Anode 1 = K1 2 = K2 3 = A1/A2	BAS35 = L22



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