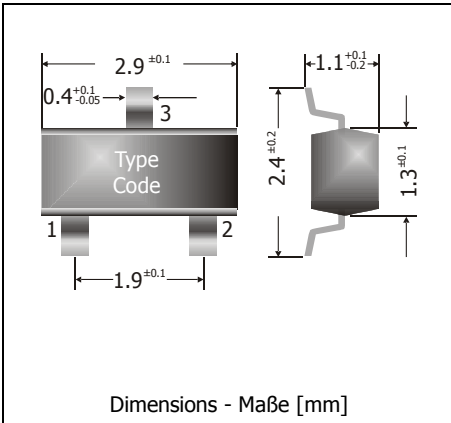


BAS31, BAS35
Surface Mount Small Signal Dual Diodes
Kleinsignal-Doppel-Dioden für die Oberflächenmontage

Version 2015-05-12



Power dissipation – Verlustleistung	350 mW
Repetitive peak reverse voltage	120 V
Periodische Spitzensperrspannung	
Plastic case	SOT-23
Kunststoffgehäuse	(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°C)

Grenzwerte (T_A = 25°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	I _{FSM} I _{FSM}	1 A 2 A
		<i>t_p ≤ 1 s</i> <i>t_p ≤ 1 μs</i>
Repetitive peak reverse voltage Periodische Spitzensperrspannung	V _{RRM}	120 V
Junction temperature – Sperrschichttemperatur	T _j	-55...+150°C
Storage temperature – Lagerungstemperatur	T _s	-55...+150°C

Characteristics (T_j = 25°C)

Kennwerte (T_j = 25°C)

Forward voltage ³⁾ Durchlass-Spannung ³⁾	I _F = 10 mA	V _F	< 750 mV	
	I _F = 50 mA	V _F	< 840 mV	
	I _F = 100 mA	V _F	< 900 mV	
	I _F = 200 mA	V _F	< 1.00 V	
	I _F = 400 mA	V _F	< 1.25 V	
Leakage current Sperrstrom	T _j = 25°C	V _R = 90 V	I _R	< 100 nA
	T _j = 150°C	V _R = 90 V	I _R	< 100 μA

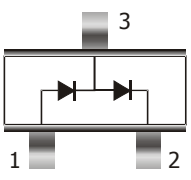
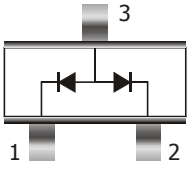
1 Total power dissipation of both diodes – Summe der Verlustleistungen beider Dioden

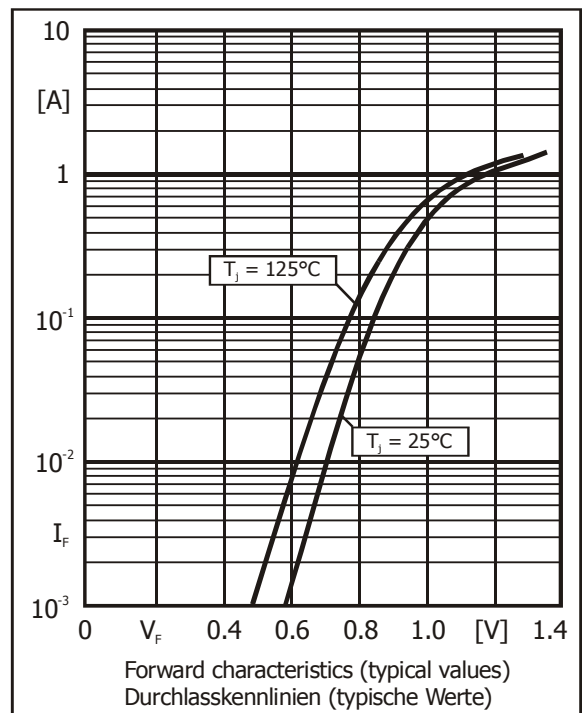
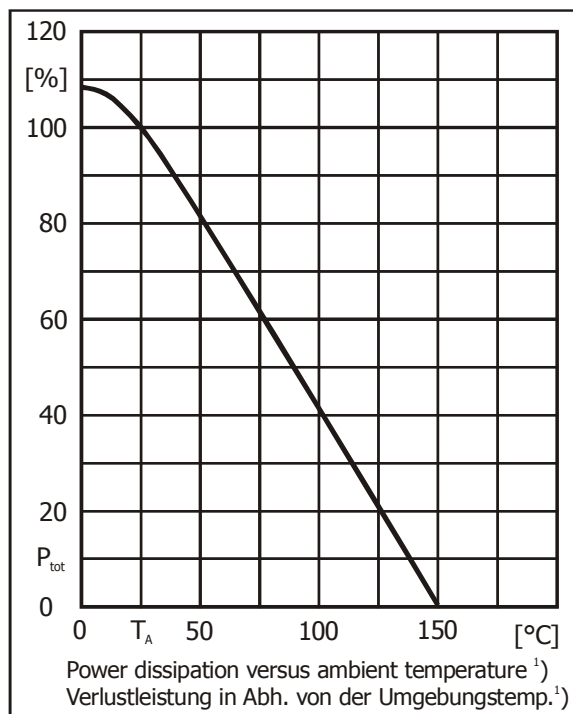
2 Mounted on P.C. board with 3 mm² copper pad at each terminal
 Montage auf Leiterplatte mit 3 mm² Kupferbelag (Lötpad) an jedem Anschluss

3 Tested with pulses t_p = 300 μs, duty cycle ≤ 2% – Gemessen mit Impulsen t_p = 300 μs, Schaltverhältnis ≤ 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 – Sperrverzögerung $I_F = 10\text{ mA}$ 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