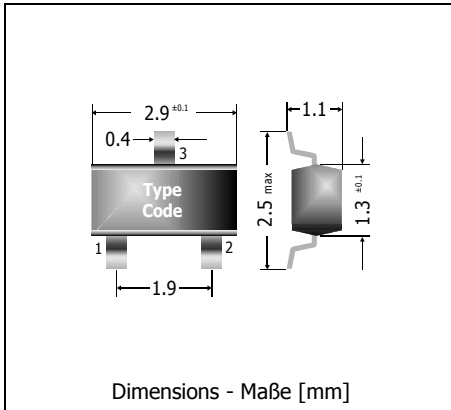



BAS31, BAS35

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°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	t _p ≤ 1 s I _{FSM} t _p ≤ 1 µs I _{FSM}	1 A 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°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

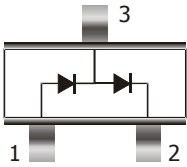
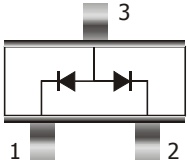
1 Total power dissipation of both diodes – Summe der Verlustleistungen beider Dioden

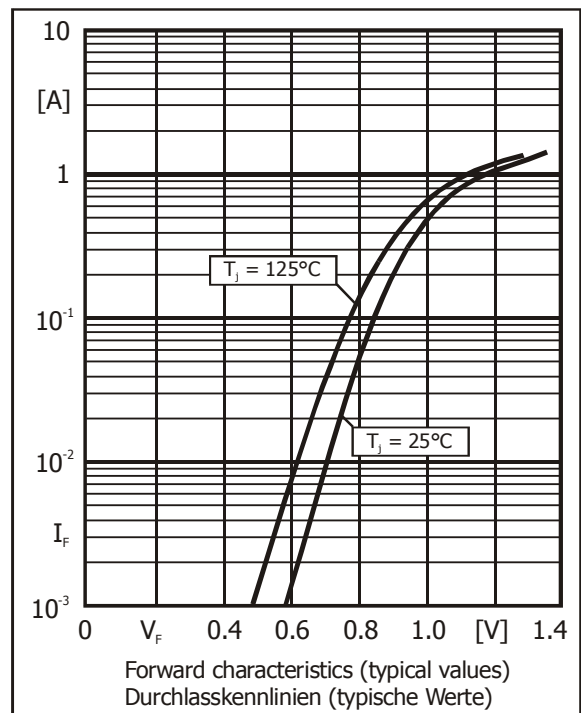
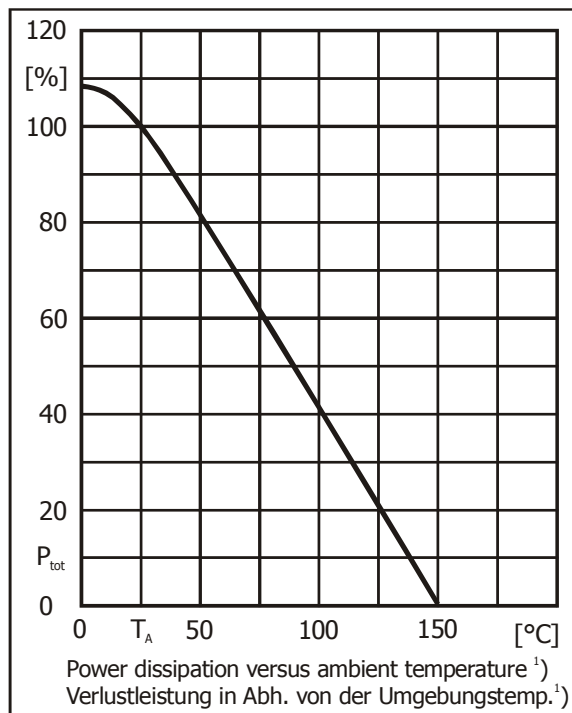
2 Mounted on P.C. board with 3 mm² copper pad at each terminal
Montage auf Leiterplatte mit 3 mm² Kupferbelag (Löt-pad) an jedem Anschluss

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 – 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 $1 = A1 \quad 2 = K2 \quad 3 = K1/A2$	BAS31 = L21
	Dual diode, common anode Doppeldiode, gemeinsame Anode $1 = K1 \quad 2 = K2 \quad 3 = A1/A2$	BAS35 = L22



¹ Mounted on P.C. board with 3 mm² copper pad at each terminal
 Montage auf Leiterplatte mit 3 mm² Kupferbelag (Lötpad) an jedem Anschluss