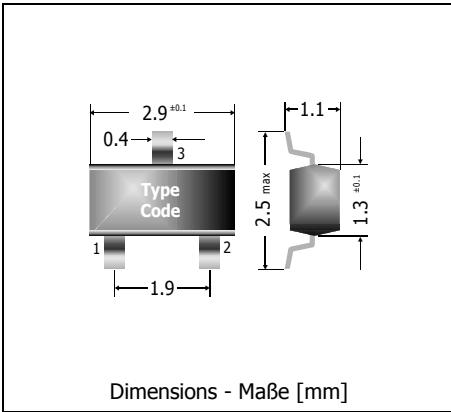


**BAS31 ... BAS35**  
**Surface Mount Small Signal Dual Diodes**  
**Kleinsignal-Doppel-Dioden für die Oberflächenmontage**

Version 2009-11-26



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<sub>A</sub> = 25°C)**

**Grenzwerte (T<sub>A</sub> = 25°C)**

per diode / pro Diode	<b>BAS35</b>	
Power dissipation – Verlustleistung <sup>1)</sup>	P <sub>tot</sub>	350 mW <sup>2)</sup>
Max. average forward current (dc) Dauergrenzstrom	I <sub>FAV</sub>	200 mA <sup>2)</sup>
Repetitive peak forward current Periodischer Spitzenstrom	I <sub>FRM</sub>	600 mA <sup>2)</sup>
Non repetitive peak forward surge current Stoßstrom-Grenzwert	t <sub>p</sub> ≤ 1 s I <sub>FSM</sub> t <sub>p</sub> ≤ 1 µs I <sub>FSM</sub>	1 A 2 A
Repetitive peak reverse voltage Periodische Spitzensperrspannung	V <sub>RRM</sub>	120 V
Junction temperature – Sperrschichttemperatur	T <sub>j</sub>	-55...+150°C
Storage temperature – Lagerungstemperatur	T <sub>s</sub>	-55...+150°C

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

**Kennwerte (T<sub>j</sub> = 25°C)**

Forward voltage <sup>3)</sup> Durchlass-Spannung <sup>3)</sup>	I <sub>F</sub> = 10 mA	V <sub>F</sub>	< 750 mV
	I <sub>F</sub> = 50 mA	V <sub>F</sub>	< 840 mV
	I <sub>F</sub> = 100 mA	V <sub>F</sub>	< 900 mV
	I <sub>F</sub> = 200 mA	V <sub>F</sub>	< 1.00 V
	I <sub>F</sub> = 400 mA	V <sub>F</sub>	< 1.25 V
Leakage current Sperrstrom	T <sub>j</sub> = 25°C    V <sub>R</sub> = 90 V	I <sub>R</sub>	< 100 nA
	T <sub>j</sub> = 150°C    V <sub>R</sub> = 90 V	I <sub>R</sub>	< 100 µA

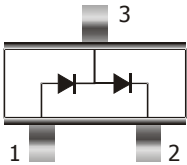
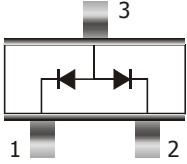
1 Total power dissipation of both diodes – Summe der Verlustleistungen beider Dioden

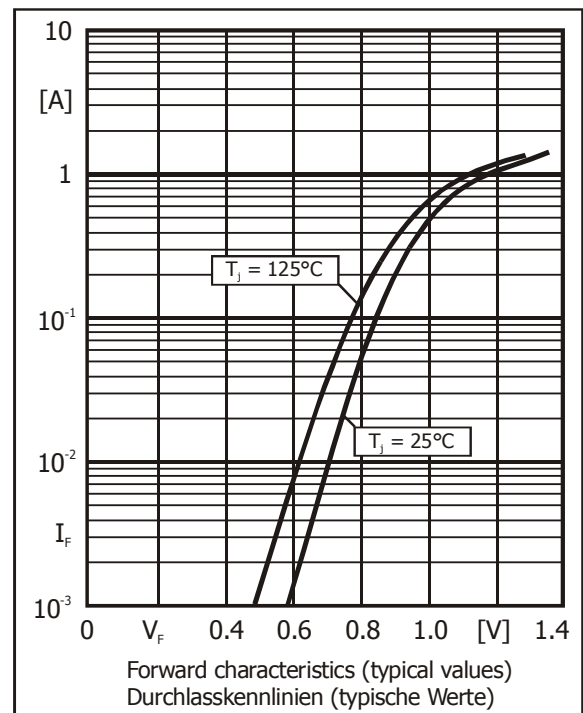
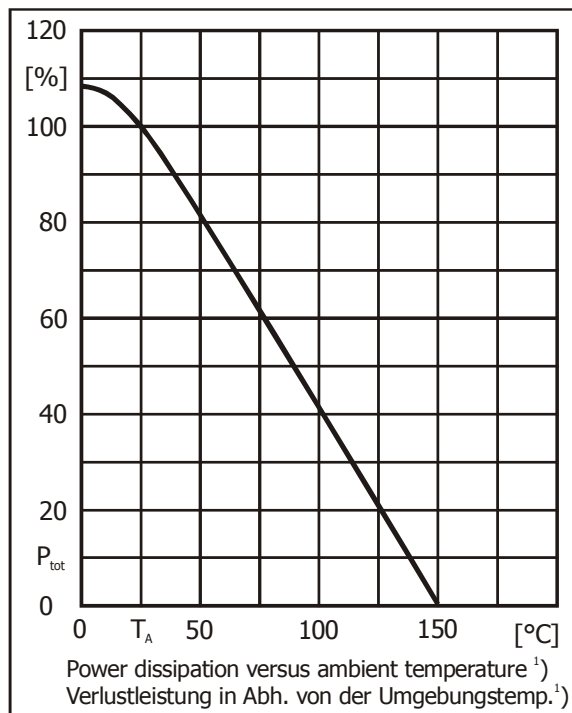
2 Mounted on P.C. board with 3 mm<sup>2</sup> copper pad at each terminal  
 Montage auf Leiterplatte mit 3 mm<sup>2</sup> Kupferbelag (Löt-pad) an jedem Anschluss

3 Tested with pulses t<sub>p</sub> = 300 µs, duty cycle ≤ 2% – Gemessen mit Impulsen t<sub>p</sub> = 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 <sup>1)</sup>

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



<sup>1)</sup> 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