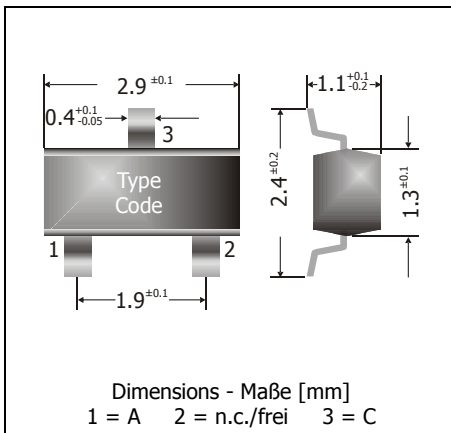


BAS19 ... BAS21
Fast Switching Surface Mount Si-Planar Diodes
Schnelle Si-Planar-Dioden für die Oberflächenmontage

Version 2015-05-12



Power dissipation – Verlustleistung	250 mW
Repetitive peak reverse voltage Periodische Spitzensperrspannung	120...250 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)**

Type Typ	Continuous reverse voltage Dauersperrspannung V _R [V]	Repetitive peak reverse voltage Periodische Spitzensperrspannung V _{RRM} [V] ¹⁾
BAS19	100	120
BAS20	150	200
BAS21	200	250

Power dissipation – Verlustleistung	P _{tot}	250 mW ²⁾
Max. average forward current (dc) Dauergrenzstrom	I _{FAV}	200 mA ¹⁾
Repetitive peak forward current Periodischer Spitzenstrom	I _{FRM}	625 mA ¹⁾
Non repetitive peak forward surge current Stoßstrom-Grenzwert	t _p ≤ 1 s t _p ≤ 1 μs	I _{FSM} I _{FSM} 0.5 A 2.5 A
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)**

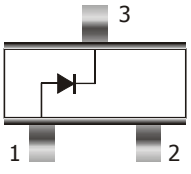
Forward voltage Durchlass-Spannung	I _F = 100 mA	V _F	< 1.00 V
	I _F = 200 mA	V _F	< 1.25 V
Leakage current Sperrstrom	T _j = 25°C V = V _R	I _R	< 100 nA
	T _j = 150°C V = V _R	I _R	< 100 μA

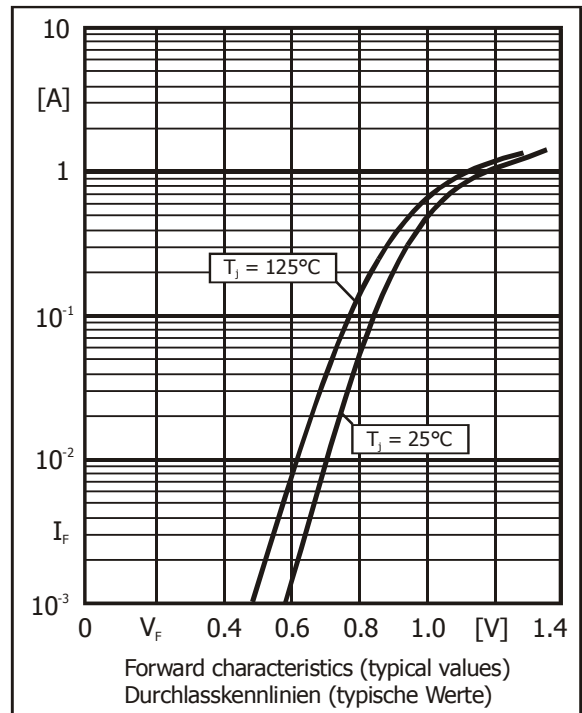
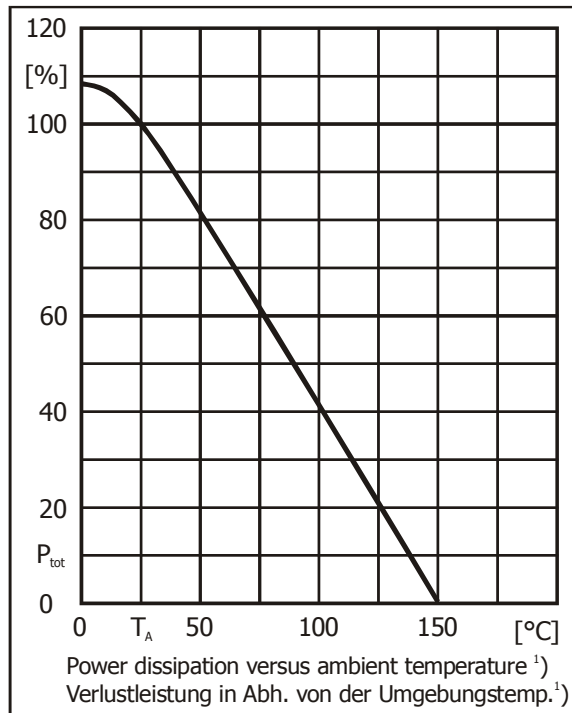
1 Tested with 100 μA pulses – Gemessen mit 100 μA-Impulsen

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

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	< 5 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}	< 420 K/W ¹⁾

Pinning – Anschlussbelegung		Marking – Stempelung
	Single Diode Einzeldiode 1 = A 2 = n.c./frei 3 = C	HB or HC



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