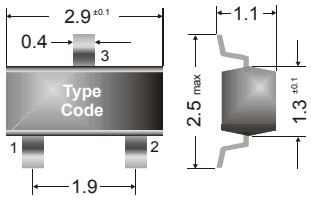
NPN

Surface mount Si-Epitaxial PlanarTransistors
Si-Epitaxial PlanarTransistoren für die Oberflächenmontage

NPN



Dimensions / Maße in mm
1 = B 2 = E 3 = C

Power dissipation – Verlustleistung	250 mW
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)**

			BFS 19
Collector-Emitter-voltage	B open	V_{CE0}	20 V
Collector-Base-voltage	E open	V_{CB0}	30 V
Emitter-Base-voltage	C open	V_{EB0}	5 V
Power dissipation – Verlustleistung		P_{tot}	250 mW [1])
Collector current – Kollektorstrom (dc)		I_C	30 mA
Peak Collector current – Kollektor-Spitzenstrom		I_{CM}	30 mA
Junction temperature – Sperrschichttemperatur		T_j	150˚C
Storage temperature – Lagerungstemperatur		T_S	- 65…+ 150˚C

Characteristics (T_j = 25˚C) **Kennwerte (T_j = 25˚C)**

		Min.	Typ.	Max.
Collector-Base cutoff current – Kollektorreststrom				
I_E = 0, V_{CB} = 20 V	I_{CB0}	–	–	100 nA
I_E = 0, V_{CB} = 20 V, T_j = 100˚C	I_{CB0}	–	–	10 µA
Emitter-Base cutoff current – Emitterreststrom				
I_C = 0, V_{EB} = 5 V	I_{EB0}	–	–	100 nA

[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

Characteristics (T_j = 25°C) **Kennwerte (T_j = 25°C)**

		Min.	Typ.	Max.
DC current gain – Kollektor-Basis-Stromverhältnis [1]				
V_{CE} = 10 V, I_C = 1 mA	h_{FE}	65	–	225
Base-Emitter voltage – Basis-Emitter-Spannung [1]				
V_{CE} = 10 V, I_C = 1 mA	V_{BEon}	650 mV	–	750 mV
Gain-Bandwidth Product – Transitfrequenz				
V_{CE} = 5 V, I_C = 10 mA, f = 100 MHz	f_T	–	260 MHz	–
Collector-Base Capacitance – Kollektor-Basis-Kapazität				
V_{CB} = 10 V, I_E = i_e = 0, f = 1 MHz	C_{CB0}	–	1 pF	–
Feedback Capacitance – Rückwirkungskapazität				
V_{CB} = 10 V, I_C = i_c = 0, f = 1 MHz		–	0.85 pF	–
Thermal resistance junction to ambient air Wärmewiderstand Sperrschicht – umgebende Luft	R_{thA}			420 K/W [2]

Marking - Stempelung	BFS 19 = F2

[1] Tested with pulses t_p = 300 µs, duty cycle ≤ 2% – Gemessen mit Impulsen t_p = 300 µs, Schaltverhältnis ≤ 2%
[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