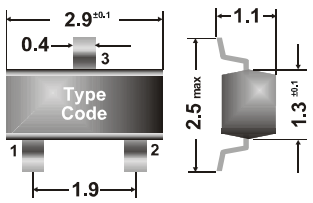
NPN **Surface mount Si-Epitaxial PlanarTransistors**
Si-Epitaxial PlanarTransistoren für die Oberflächenmontage **NPN**



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

Power dissipation – Verlustleistung 250 mW

Plastic case 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)**

			BFN 22
Collector-Emitter-voltage	B open	V_{CE0}	250 V
Collector-Base-voltage	E open	V_{CB0}	250 V
Collector-Emitter-voltage	R_{BE} = 2.7 kΩ	V_{CER}	250 V
Emitter-Base-voltage	C open	V_{EB0}	5 V
Power dissipation – Verlustleistung		P_{tot}	250 mW [1])
Collector current – Kollektorstrom (dc)		I_C	50 mA
Peak Collector current – Kollektor-Spitzenstrom		I_{CM}	100 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} = 200 V	I_{CB0}	–	–	100 nA
I_E = 0, V_{CB} = 200 V, T_j = 150˚C	I_{CB0}	–	–	20 µA
Emitter-Base cutoff current – Emitterreststrom				
I_C = 0, V_{EB} = 5 V	I_{EB0}	–	–	100 nA
Collector saturation volt. – Kollektor-Sättigungsspg. [2])				
I_C = 10 mA, I_B = 1 mA	V_{CEsat}	–	–	500 mV

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

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

		Min.	Typ.	Max.
Base saturation voltage – Basis-Sättigungsspannung [1] I_C = 10 mA, I_B = 1 mA	V_{BEsat}	–	–	1 V
DC current gain – Kollektor-Basis-Stromverhältnis [1] V_{CE} = 20 V, I_C = 25 mA	h_{FE}	50	–	–
Gain-Bandwidth Product – Transitfrequenz V_{CE} = 10 V, I_C = 10 mA, f = 100 MHz	f_T	–	100 MHz	–
Collector-Base Capacitance – Kollektor-Basis-Kapazität V_{CB} = 30 V, I_E = i_e = 0, f = 1 MHz	C_{CB0}	–	0.8 pF	–
Thermal resistance junction to ambient air Wärmewiderstand Sperrschicht – umgebende Luft	R_{thA}			420 K/W [2]
Recommended complementary PNP transistors Empfohlene komplementäre PNP-Transistoren			BFN 23	

Marking - Stempelung	BFN 22 = HB

[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

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