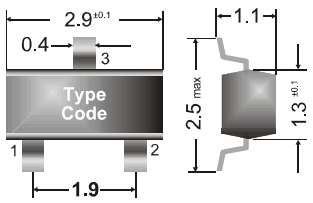
PNP **Surface mount Si-Epitaxial PlanarTransistors**
Si-Epitaxial PlanarTransistoren für die Oberflächenmontage **PNP**



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)**

			BFN 23
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
Collector-Base cutoff current – Kollektorreststrom				
$-V_{CB}$ = 250 V, R_{BE} = 2.7 kΩ	$-I_{CBR}$	–	–	1 µA
$-V_{CB}$ = 250 V, R_{BE} = 2.7 kΩ, T_j = 150˚C	$-I_{CBR}$	–	–	50 µA
Emitter-Base cutoff current – Emitterreststrom				
I_C = 0, $-V_{EB}$ = 5 V	$-I_{EB0}$	–	–	10 µA

[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.
Collector saturation volt. – Kollektor-Sättigungsspg. [1])				
- I_C = 10 mA, - I_B = 1 mA	- V_{CEsat}	–	–	500 mV
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 = 20 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 NPN transistors Empfohlene komplementäre NPN-Transistoren			BFN 22	
Marking - Stempelung			BFN 23 = HC	

[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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