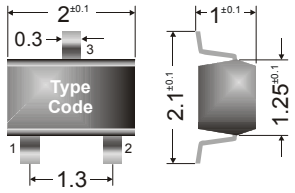
PNP — **Surface mount Si-Epitaxial PlanarTransistors**
Si-Epitaxial PlanarTransistoren für die Oberflächenmontage — **PNP**



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

Power dissipation – Verlustleistung 225 mW

Plastic case SOT-323
Kunststoffgehäuse

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)**

			BC 807W	BC 808W
Collector-Emitter-voltage	B open	$-V_{CE0}$	45 V	25 V
Collector-Emitter-voltage	B shorted	$-V_{CES}$	50 V	30 V
Collector-Base-voltage	E open	$-V_{CB0}$	50 V	30 V
Emitter-Base-voltage	C open	$-V_{EB0}$	5 V	
Power dissipation – Verlustleistung		P_{tot}	225 mW [1])	
Collector current – Kollektorstrom (DC)		$-I_C$	500 mA	
Peak Coll. current – Kollektor-Spitzenstrom		$-I_{CM}$	1000 mA	
Peak Base current – Basis-Spitzenstrom		$-I_{BM}$	200 mA	
Peak Emitter current – Emitter-Spitzenstrom		I_{EM}	1000 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.
DC current gain – Kollektor-Basis-Stromverhältnis					
$-V_{CE}$ = 1 V, $-I_C$ = 100 mA	BC807W	h_{FE}	100	–	600
$-V_{CE}$ = 1 V, $-I_C$ = 500 mA	BC808W	h_{FE}	40	–	–
	Group -16W	h_{FE}	100	160	250
$-V_{CE}$ = 1 V, $-I_C$ = 100 mA	Group -25W	h_{FE}	160	250	400
	Group -40W	h_{FE}	250	400	600

[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, $T_j = 25^\circ C$ **Kennwerte, $T_j = 25^\circ C$**

		Min.	Typ.	Max.
Collector saturation voltage – Kollektor-Sättigungsspg. $-I_C = 500$ mA, $-I_B = 50$ mA	$-V_{CEsat}$	–	–	0.7 V
Base saturation voltage – Basis-Sättigungsspannung $-I_C = 500$ mA, $-I_B = 50$ mA	$-V_{BEsat}$	–	–	1.3 V
Base-Emitter voltage – Basis-Emitter-Spannung $-V_{CE} = 1$ V, $-I_C = 500$ mA	$-V_{BE}$	–	–	1.2 V
Collector-Base cutoff current – Kollektorreststrom $I_E = 0$, $-V_{CB} = 20$ V	$-I_{CB0}$	–	–	100 nA
$I_E = 0$, $-V_{CB} = 20$ V, $T_j = 150^\circ C$	$-I_{CB0}$	–	–	5 µA
Emitter-Base cutoff current – Emitterreststrom $I_C = 0$, $-V_{EB} = 4$ V	$-I_{EB0}$	–	–	100 nA
Gain-Bandwidth Product – Transitfrequenz $-V_{CE} = 5$ V, $-I_C = 10$ mA, f = 50 MHz	f_T	80 MHz	100 MHz	–
Collector-Base Capacitance – Kollektor-Basis-Kapazität $-V_{CB} = 10$ V, $I_E = i_e = 0$, f = 1 MHz	C_{CB0}	–	10 pF	–
Thermal resistance junction to ambient air Wärmewiderstand Sperrschicht – umgebende Luft	R_{thA}			620 K/W [1])
Recommended complementary NPN transistors Empfohlene komplementäre NPN-Transistoren			BC 817W / BC 818W	

Marking of available current gain groups per type Stempelung der lieferbaren Strom verstärkungsgruppen pro Typ	BC 807-16W = 5A	BC 807-25W = 5B	BC 807-40W = 5C
	BC 807W = 5D		
	BC 808-16W = 5E	BC 808-25W = 5F	BC 808-40W = 5G
	BC 808W = 5H		

[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