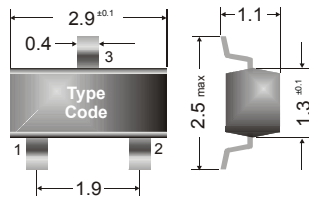


PNP

Surface mount Si-Epitaxial Planar Transistors
Si-Epitaxial Planar Transistoren für die Oberflächenmontage

PNP



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

Power dissipation – Verlustleistung 310 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 ($T_A = 25^\circ\text{C}$)**Grenzwerte ($T_A = 25^\circ\text{C}$)**

			BC 807	BC 808
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}	310 mW ¹⁾	
Collector current – Kollektorstrom (DC)		$-I_C$	800 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, $T_j = 25^\circ\text{C}$ **Kennwerte, $T_j = 25^\circ\text{C}$**

			Min.	Typ.	Max.
DC current gain – Kollektor-Basis-Stromverhältnis					
$-V_{CE} = 1\text{ V}, -I_C = 100\text{ mA}$	BC807	h_{FE}	100	–	600
$-V_{CE} = 1\text{ V}, -I_C = 500\text{ mA}$	BC808	h_{FE}	40	–	–
	Group -16	h_{FE}	100	160	250
$-V_{CE} = 1\text{ V}, -I_C = 100\text{ mA}$	Group -25	h_{FE}	160	250	400
	Group -40	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 (Löt-pad) an jedem Anschluß

Characteristics, $T_j = 25^\circ\text{C}$ Kennwerte, $T_j = 25^\circ\text{C}$

	Min.	Typ.	Max.
Collector saturation voltage – Kollektor-Sättigungsspg. - $I_C = 500\text{ mA}$, - $I_B = 50\text{ mA}$ - V_{CEsat}	–	–	0.7 V
Base saturation voltage – Basis-Sättigungsspannung - $I_C = 500\text{ mA}$, - $I_B = 50\text{ mA}$ - V_{BEsat}	–	–	1.3 V
Base-Emitter voltage – Basis-Emitter-Spannung - $V_{CE} = 1\text{ V}$, - $I_C = 500\text{ mA}$ - V_{BE}	–	–	1.2 V
Collector-Base cutoff current – Kollektorreststrom $I_E = 0$, - $V_{CB} = 20\text{ V}$ - I_{CB0}	–	–	100 nA
$I_E = 0$, - $V_{CB} = 20\text{ V}$, $T_j = 150^\circ\text{C}$ - I_{CB0}	–	–	5 μA
Emitter-Base cutoff current – Emittorreststrom $I_C = 0$, - $V_{EB} = 4\text{ V}$ - I_{EB0}	–	–	100 nA
Gain-Bandwidth Product – Transistfrequenz - $V_{CE} = 5\text{ V}$, - $I_C = 10\text{ mA}$, $f = 50\text{ MHz}$ f_T	80 MHz	100 MHz	–
Collector-Base Capacitance – Kollektor-Basis-Kapazität - $V_{CB} = 10\text{ V}$, $I_E = i_e = 0$, $f = 1\text{ MHz}$ C_{CB0}	–	12 pF	–
Thermal resistance junction to ambient air Wärmewiderstand Sperrschicht – umgebende Luft	R_{thA}		320 K/W ¹⁾
Recommended complementary NPN transistors Empfohlene komplementäre NPN-Transistoren	BC 817 / BC 818		

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