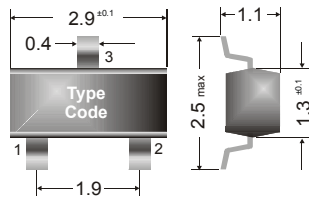


NPN

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

NPN



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 817	BC 818
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					
$V_{CE} = 1\text{ V}$, $I_C = 100\text{ mA}$	BC817	h_{FE}	100	–	600
$V_{CE} = 1\text{ V}$, $I_C = 500\text{ mA}$	BC818	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 – Emitterreststrom $I_C = 0, V_{EB} = 4\text{ V}$	I_{EB0}	–	–	100 nA
Gain-Bandwidth Product – Transitfrequenz $V_{CE} = 5\text{ V}, I_C = 10\text{ mA}, f = 50\text{ MHz}$	f_T	–	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 PNP transistors Empfohlene komplementäre PNP-Transistoren		BC 807 / BC 808		

Marking of available current gain groups per type	BC 817-16 = 6A	BC 817-25 = 6B	BC 817-40 = 6C
	BC 817 = 6D		
Stempelung der lieferbaren Stromverstärkungsgruppen pro Typ	BC 818-16 = 6E	BC 818-25 = 6F	BC 818-40 = 6G
	BC 818 = 6H		

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