

BC 817 / BC 818

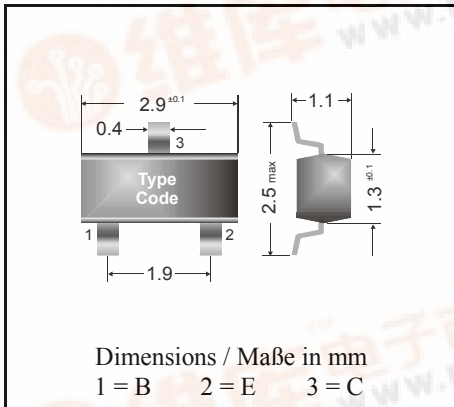


General Purpose Transistors

NPN

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

NPN



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°C)

Grenzwerte (T_A = 25°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°C

Kennwerte, T_j = 25°C

				Min.	Typ.	Max.
DC current gain – Kollektor-Basis-Stromverhältnis						
V _{CE} = 1 V, I _C = 100 mA	BC817	h _{FE}		100	–	600
V _{CE} = 1 V, I _C = 500 mA	BC818	h _{FE}		40	–	–
	Group -16	h _{FE}		100	160	250
V _{CE} = 1 V, I _C = 100 mA	Group -25	h _{FE}		160	250	400
	Group -40	h _{FE}		250	400	600



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

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

	Min.	Typ.	Max.
Collector saturation voltage – Kollektor-Sättigungssp. $I_C = 500\text{ mA}, I_B = 50\text{ mA}$ 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 (Löt-pad) an jedem Anschluß