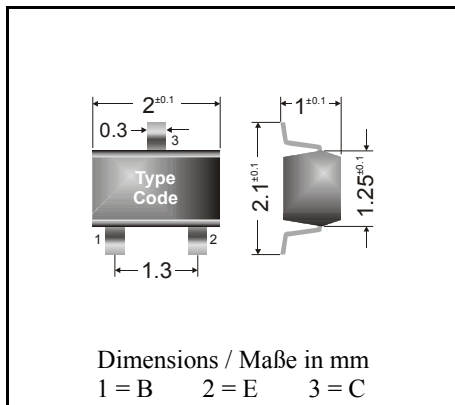


NPN

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

NPN



Power dissipation – Verlustleistung	225 mW
Plastic case Kunststoffgehäuse	SOT-323
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 817W	BC 818W
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	BC817W	h _{FE}	100	–	600
	BC818W	h _{FE}	40	–	–
V _{CE} = 1 V, I _C = 100 mA	Group -16W	h _{FE}	100	160	250
	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 (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}	–	–	1.2 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 – Transitfrequenz $V_{CE} = 5\text{ V}, I_C = 10\text{ mA}, f = 50\text{ MHz}$ f_T	100 MHz	170 MHz	–
Collector-Base Capacitance – Kollektor-Basis-Kapazität $V_{CB} = 10\text{ V}, I_E = i_c = 0, f = 1\text{ MHz}$ C_{CB0}	–	6 pF	–
Thermal resistance junction to ambient air Wärmewiderstand Sperrschicht – umgebende Luft	R_{thA}	620 K/W ¹⁾	
Recommended complementary PNP transistors Empfohlene komplementäre PNP-Transistoren	BC 807W / BC 808W		

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