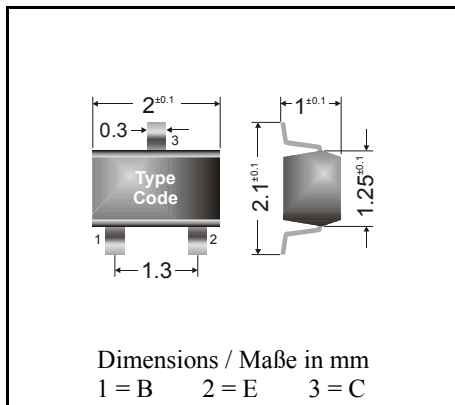


NPN

**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 klassifiziertStandard packaging taped and reeled  
Standard Lieferform gegurtet auf Rolle**Maximum ratings (T<sub>A</sub> = 25°C)****Grenzwerte (T<sub>A</sub> = 25°C)**

			<b>BC 817W</b>	<b>BC 818W</b>
Collector-Emitter-voltage	B open	V <sub>CE0</sub>	45 V	25 V
Collector-Emitter-voltage	B shorted	V <sub>CES</sub>	50 V	30 V
Collector-Base-voltage	E open	V <sub>CB0</sub>	50 V	30 V
Emitter-Base-voltage	C open	V <sub>EB0</sub>	5 V	
Power dissipation – Verlustleistung		P <sub>tot</sub>	225 mW <sup>1)</sup>	
Collector current – Kollektorstrom (DC)		I <sub>C</sub>	500 mA	
Peak Coll. current – Kollektor-Spitzenstrom		I <sub>CM</sub>	1000 mA	
Peak Base current – Basis-Spitzenstrom		I <sub>BM</sub>	200 mA	
Peak Emitter current – Emitter-Spitzenstrom		- I <sub>EM</sub>	1000 mA	
Junction temperature – Sperrschichttemperatur		T <sub>j</sub>	150°C	
Storage temperature – Lagerungstemperatur		T <sub>S</sub>	- 65...+ 150°C	

**Characteristics, T<sub>j</sub> = 25°C****Kennwerte, T<sub>j</sub> = 25°C**

			<b>Min.</b>	<b>Typ.</b>	<b>Max.</b>
DC current gain – Kollektor-Basis-Stromverhältnis					
V <sub>CE</sub> = 1 V, I <sub>C</sub> = 100 mA	BC817W	h <sub>FE</sub>	100	–	600
	BC818W	h <sub>FE</sub>	40	–	–
V <sub>CE</sub> = 1 V, I <sub>C</sub> = 100 mA	Group -16W	h <sub>FE</sub>	100	160	250
	Group -25W	h <sub>FE</sub>	160	250	400
	Group -40W	h <sub>FE</sub>	250	400	600

<sup>1)</sup> Mounted on P.C. board with 3 mm<sup>2</sup> copper pad at each terminal  
 Montage auf Leiterplatte mit 3 mm<sup>2</sup> 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 $\mu\text{A}$
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 <sup>1)</sup>
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		

<sup>1)</sup> Mounted on P.C. board with 3 mm<sup>2</sup> copper pad at each terminal  
Montage auf Leiterplatte mit 3 mm<sup>2</sup> Kupferbelag (Lötpad) an jedem Anschluß