

BC 817W / BC 818W

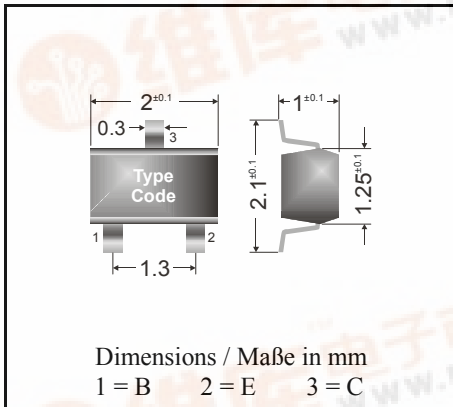


General Purpose Transistors

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 RolleMaximum ratings ($T_A = 25^\circ\text{C}$)Grenzwerte ($T_A = 25^\circ\text{C}$)

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

			Min.	Typ.	Max.
DC current gain – Kollektor-Basis-Stromverhältnis					
$V_{CE} = 1\text{ V}$, $I_C = 100\text{ mA}$	BC817W	h_{FE}	100	–	600
$V_{CE} = 1\text{ V}$, $I_C = 500\text{ mA}$	BC818W	h_{FE}	40	–	–
$V_{CE} = 1\text{ V}$, $I_C = 100\text{ mA}$	Group -16W	h_{FE}	100	160	250
	Group -25W	h_{FE}	160	250	400
	Group -40W	h_{FE}	250	400	600



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 mA, I_B = 50 mA V_{CEsat}		–	–	0.7 V
Base saturation voltage – Basis-Sättigungsspannung I_C = 500 mA, I_B = 50 mA V_{BEsat}		–	–	1.2 V
Base-Emitter voltage – Basis-Emitter-Spannung V_{CE} = 1 V, - I_C = 500 mA V_{BE}		–	–	1.2 V
Collector-Base cutoff current – Kollektorreststrom I_E = 0, V_{CB} = 20 V I_{CB0} I_E = 0, V_{CB} = 20 V, T_j = 150°C I_{CB0}		–	–	100 nA 5 μA
Emitter-Base cutoff current – Emitterreststrom I_C = 0, V_{EB} = 4 V I_{EB0}		–	–	100 nA
Gain-Bandwidth Product – Transittfrequenz V_{CE} = 5 V, I_C = 10 mA, f = 50 MHz f_T		100 MHz	170 MHz	–
Collector-Base Capacitance – Kollektor-Basis-Kapazität V_{CB} = 10 V, I_E = i_e = 0, f = 1 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 Stempelung der lieferbaren Stromverstärkungsgruppen pro Typ		BC 817-16W = 6A BC 817W = 6D	BC 817-25W = 6B BC 818-25W = 6F	BC 817-40W = 6C 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 (Lötnad) an jedem Anschluß