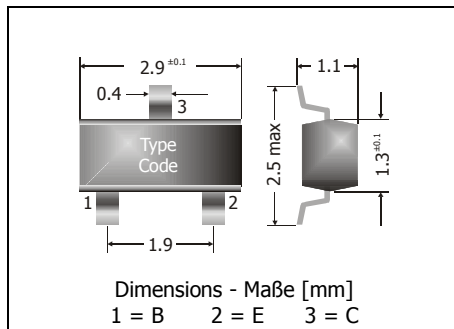


BC817K / BC818K**NPN**

Surface Mount Low Rth Si-Epi-Planar Transistors
Si-Epi-Planar Low Rth Transistoren für die Oberflächenmontage

NPN

Version 2011-10-26



Power dissipation – Verlustleistung

500 mW

 Plastic case
 Kunststoffgehäuse

 SOT-23
 (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 gurtet auf Rolle
**Maximum ratings (T_A = 25°C)****Grenzwerte (T_A = 25°C)**

			BC817K	BC818K
Collector-Base-volt. – Kollektor-Basis-Spannung	C open	V _{CBO}	50 V	30 V
Collector-Emitter-volt. – Kollektor-Emitter-Spannung	B open	V _{CEO}	45 V	25 V
Emitter-Base-voltage – Emitter-Basis-Spannung	C open	V _{EBO}	5 V	
Power dissipation – Verlustleistung	T _{sp} ≤ 115°C	P _{tot}	500 mW	
Collector current – Kollektorstrom (dc)		I _C	500 mA	
Peak Collector current – Kollektor-Spitzenstrom		I _{CM}	1 A	
Base current – Basisstrom		I _B	100 mA	
Peak Base current – Basis-Spitzenstrom		I _{BM}	200 mA	
Junction temperature – Sperrschichttemperatur		T _j	+150°C	
Storage temperature – Lagerungstemperatur		T _S	-55...+150°C	

Characteristics (T_j = 25°C)**Kennwerte (T_j = 25°C)**

			Min.	Typ.	Max.
DC current gain – Kollektor-Basis-Stromverhältnis ²⁾					
V _{CE} = 1 V, I _C = 100 mA	Group -16	h _{FE}	100	–	250
	Group -25	h _{FE}	160	–	400
	Group -40	h _{FE}	250	–	630
V _{CE} = 1 V, I _C = 500 mA	all groups	h _{FE}	40	–	–
Collector-Emitter saturation voltage – Kollektor-Emitter-Sättigungsspg. ²⁾					
I _C = 500 mA, I _B = 50 mA		V _{CEsat}	–	–	0.7 V
Base-Emitter saturation voltage – Basis-Emitter-Sättigungsspannung ²⁾					
I _C = 500 mA, I _B = 50 mA		V _{BEsat}	–	–	1.2 V

²⁾ Tested with pulses t_p = 300 μs, duty cycle ≤ 2% – Gemessen mit Impulsen t_p = 300 μs, Schaltverhältnis ≤ 2%

Characteristics ($T_j = 25^\circ\text{C}$)
Kennwerte ($T_j = 25^\circ\text{C}$)

		Min.	Typ.	Max.
Collector-Base cutoff current – Kollektor-Basis-Reststrom $V_{CB} = 25\text{ V}$, (E open)		–	–	100 nA
Emitter-Base cutoff current – Emitter-Basis-Reststrom $V_{EB} = 4\text{ V}$, (C open)		–	–	100 nA
Transition Frequency – Transitfrequenz $V_{CE} = 5\text{ V}$, $I_C = 50\text{ mA}$, $f = 100\text{ MHz}$		–	170 MHz	–
Collector-Base Capacitance – Kollektor-Basis-Kapazität $V_{CB} = 10\text{ V}$, $I_E = i_e = 0$, $f = 1\text{ MHz}$		–	3 pF	–
Thermal resistance junction to soldering point Wärmewiderstand Sperrschicht – Löt看點		< 70 K/W		
Recommended complementary PNP transistors Empfohlene komplementäre PNP-Transistoren		BC807K / BC808K		
Marking of available current gain groups per type Stempelung der lieferbaren Stromverstärkungsgruppen pro Typ	BC817K-16 = 6A or 6CR BC817K-25 = 6B or 6CS BC817K-40 = 6C or 6CT	BC818K-16 = 6E or 6CR BC818K-25 = 6F or 6CS BC818K-40 = 6G or 6CT		