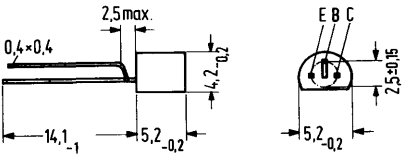
BC 182 and BC 183 are epitaxial NPN silicon planar transistors in TO 92 plastic package (10 A 3 DIN 41868). They are intended for use in AF input and driver stages as well as in DC voltage amplifiers. The transistors are provided for low-noise input stages and as complementary transistors to BC 212 and BC 213.

Type	Ordering code
BC 182[1]	Q62702-C455
BC 182 A	Q62702-C372
BC 182 B	Q62702-C373
BC 183[1]	Q62702-C833
BC 183 A	Q62702-C388
BC 183 B	Q62702-C387
BC 183 C	Q62702-C524



Mounting instruction: Fixing hole dia 0.6

Approx. weight 0.25 g Dimensions in mm

Maximum ratings		BC 182	BC 183	
Collector-emitter voltage	V_{CEO}	50	30	V
Collector-base voltage	V_{CBO}	60	45	V
Emitter-base voltage	V_{EBO}	6	6	V
Collector current	I_C	200	200	mA
Base current	I_B	50	50	mA
Junction temperature	T_j	150	150	°C
Storage temperature range	T_{stg}	−65 to +150	−65 to +150	°C
Total power dissipation	P_{tot}	300	300	mW
Thermal resistance				
Junction to ambient air	R_{thJA}	≦420	≦420	K/W

1) If the order does not include any exact indication of the current amplification group desired, a transistor of a current amplification group just available from stock will be delivered.

Static characteristics (T_{amb} = 25 °C)

The transistors are grouped in accordance with the DC current gain h_{FE}, and are marked by A and B. At V_{CE} = 5 V and the collector currents indicated below the following static characteristics apply:

Type	BC 182, BC 183	BC 182, BC 183	BC 183
h_{FE} group	A	B	C
I_C (mA)	h_{FE} I_C/I_B	h_{FE} I_C/I_B	h_{FE} I_C/I_B
0.01	>40	150	270
2	170 (120 to 220)	290 (180 to 460)	500 (380 to 800)
100	120	200	400

Static characteristics (T_{amb} = 25 °C)

Type	BC 182, BC 183			
I_C (mA)	I_B (mA)	V_{BE} (V)	V_{CEsat} (V)	V_{BEsat} (V)
0.01	–	0.52	–	–
2	–	0.62 (0.55 to 0.7)	–	–
10	0.5	–	<0.25[1)]	–
100	5	–	<0.6[1)]	<1.2
100	–	0.82	–	–

		BC 182	BC 183	
Collector cutoff current (V_{CB} = 50 V)	I_{CBO}	<15	<15	nA
Emitter cutoff current (V_{EB} = 4 V)	I_{EBO}	<15	<15	nA
Collector-emitter breakdown voltage (I_C = 2 mA)	$V_{(BR)CEO}$	>50	>30	V
Collector-base breakdown voltage (I_C = 10 μA)	$V_{(BR)CBO}$	>60	>45	V
Emitter-base breakdown voltage (I_C = 10 μA)	$V_{(BR)EBO}$	>6	>6	V

1) The transistor is overloaded to such an extent that the DC current gain decreases to h_{FE} = 20.

Dynamic characteristics (T_{amb} = 25 °C)

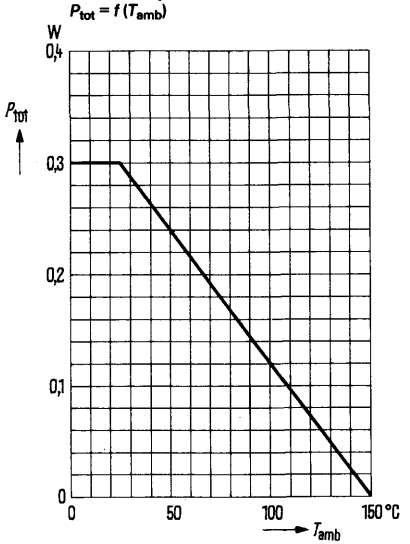
I_C = 2 mA; V_{CE} = 5 V; f = 1 kHz)

Type	BC 182 BC 183	BC 182 BC 183	BC 183	
h_{FE} group	A	B	C	
h_{11e}	2.7 (1.6 to 4.5)	4.5 (3.2 to 8.5)	8.7 (6 to 15)	kΩ
h_{12e}	1.5	2	3	10^{-4}
h_{21e}	220	330	600	–
h_{22e}	18 (<30)	30 (<60)	60 (<110)	μS

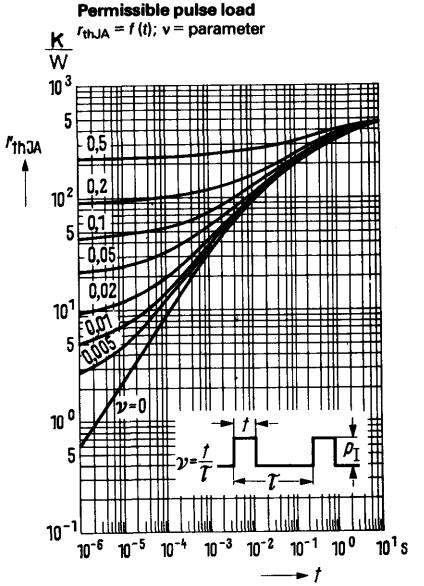
Dynamic characteristics (T_{amb} = 25 °C)

		BC 182	BC 183	
Transition frequency (I_C = 10 mA; V_{CE} = 5 V; f = 100 MHz)	f_T	>150	>150	MHz
Collector-base capacitance (V_{CB} = 10 V; I_E = 0; f = 1 MHz)	C_{CBO}	2.5 (<5)	2.5 (<5)	pF
Emitter-base capacitance (V_{EB} = 0.5 V; I_E = 0; f = 1 MHz)	C_{EBO}	8	8	pF
Noise figure (I_C = 0.2 mA; V_{CE} = 5 V; f = 1 kHz; R_g = 2 kΩ)	NF	2 (<10)	2 (<10)	dB

Total perm. power dissipation versus temperature
$P_{tot} = f(T_{amb})$



Permissible pulse load
$r_{thJA} = f(t)$; ν = parameter



The further characteristic curves for these transistors comply with those for BC 237 and BC 238.