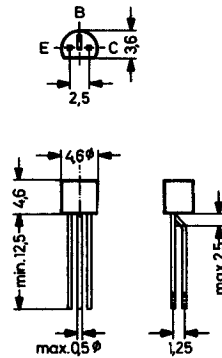


# BC250

## PNP Silicon Epitaxial Planar Transistor

for switching and amplifier applications

The transistor is subdivided into three groups A, B and C according to its DC current gain.



Plastic package  $\approx$  JEDEC TO-92  
TO-18 compatible  
The case is impervious to light

Weight about 0.18 g  
Dimensions in mm

## Absolute Maximum Ratings

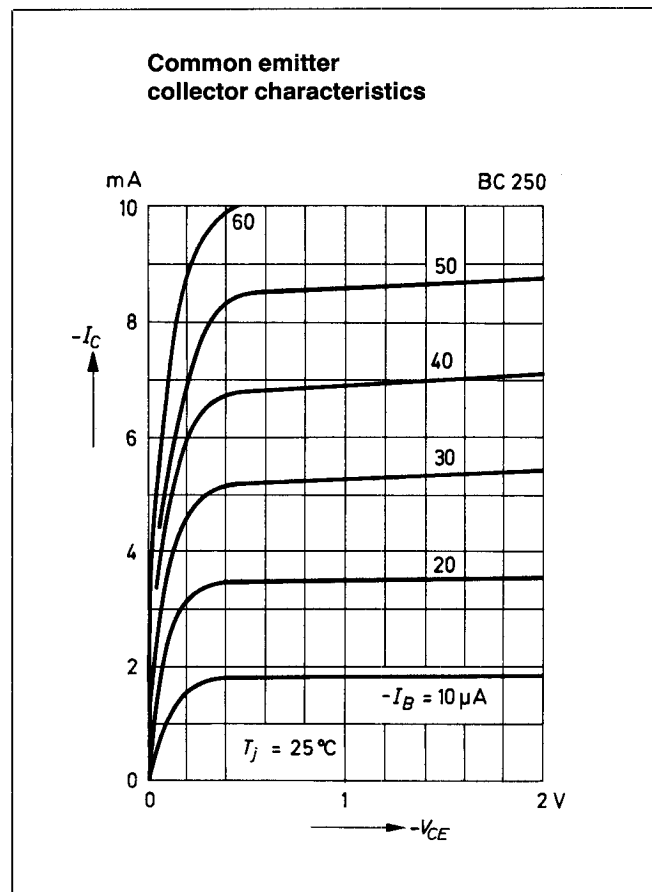
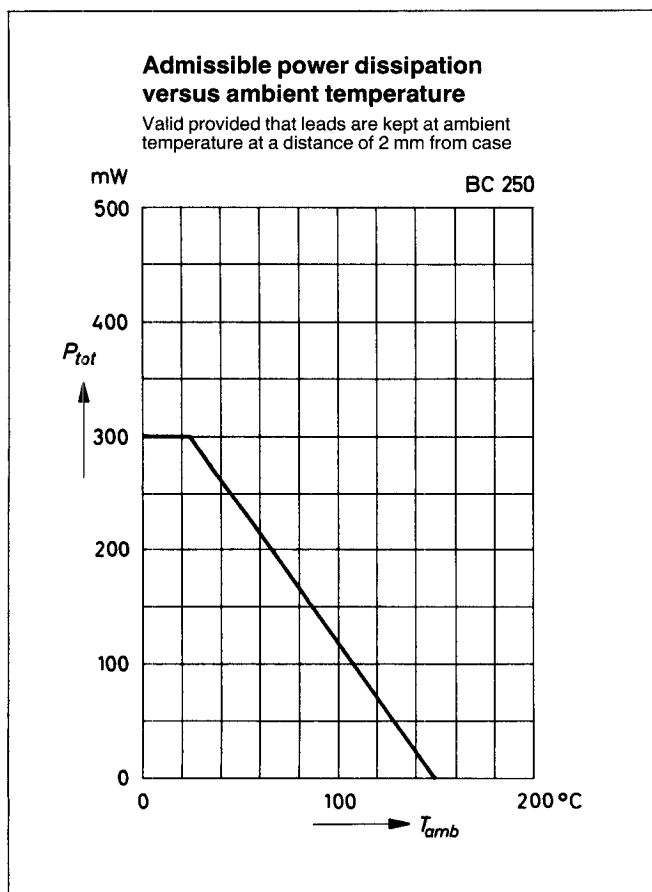
	Symbol	Value	Unit
Collector Base Voltage	$-V_{CBO}$	20	V
Collector Emitter Voltage	$-V_{CEO}$	20	V
Emitter Base Voltage	$-V_{EBO}$	5	V
Collector Current	$-I_C$	100	mA
Power Dissipation at $T_{amb} = 25^\circ\text{C}$	$P_{tot}$	300 <sup>1)</sup>	mW
Junction Temperature	$T_j$	150	$^\circ\text{C}$
Storage Temperature Range	$T_s$	$-55 \dots +150$	$^\circ\text{C}$

<sup>1)</sup> Valid provided that leads are kept at ambient temperature at a distance of 2 mm from case

Characteristics at  $T_j = 25\text{ }^\circ\text{C}$

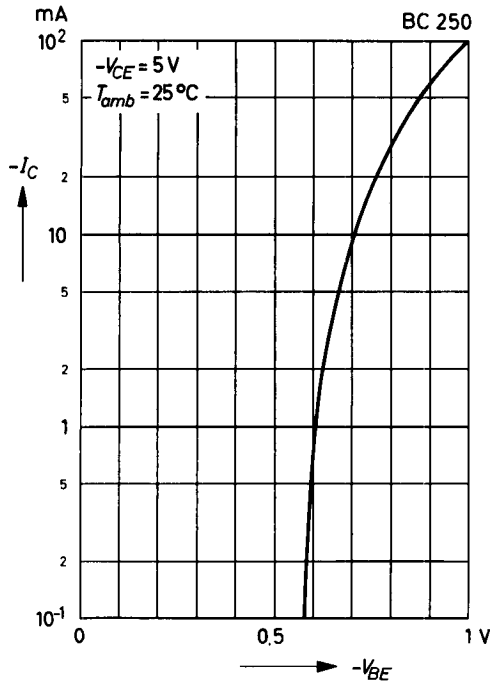
	Symbol	Min.	Typ.	Max.	Unit
DC Current Gain at $-V_{CE} = 1\text{ V}$ , $-I_C = 1\text{ mA}$ <b>Current Gain Group</b> <b>A</b> <b>B</b> <b>C</b>	$h_{FE}$	35	–	100	–
	$h_{FE}$	80	–	250	–
	$h_{FE}$	200	–	600	–
Collector Saturation Voltage at $-I_C = 30\text{ mA}$ , $-I_B = 3\text{ mA}$	$-V_{CEsat}$	–	0.4	–	V
Collector Cutoff Current at $-V_{CB} = 15\text{ V}$	$-I_{CBO}$	–	–	100	nA
Emitter Cutoff Current at $-V_{EB} = 4\text{ V}$	$-I_{EBO}$	–	–	100	nA
Gain Bandwidth Product at $-V_{CE} = 5\text{ V}$ , $-I_C = 10\text{ mA}$ , $f = 100\text{ MHz}$	$f_T$	–	180	–	MHz
Collector Base Capacitance at $-V_{CBO} = 10\text{ V}$ , $f = 1\text{ MHz}$	$C_{CBO}$	–	3	–	pF
Emitter Base Capacitance at $-V_{EBO} = 0.5\text{ V}$ , $f = 1\text{ MHz}$	$C_{EBO}$	–	12	–	pF
Thermal Resistance Junction to Ambient	$R_{thA}$	–	–	400 <sup>1)</sup>	K/W

<sup>1)</sup> Valid provided that leads are kept at ambient temperature at a distance of 2 mm from case

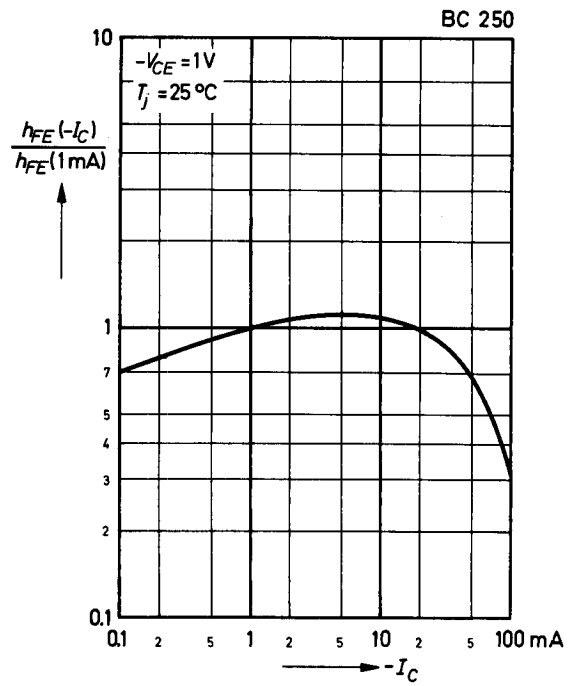


# BC250

**Collector current versus base emitter voltage**



**Relative DC current gain versus collector current**



**Collector cutoff current versus junction temperature**

