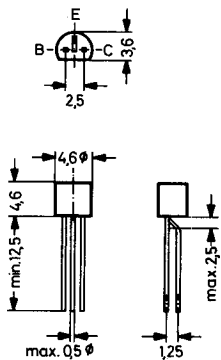


BF450, BF451

PNP Silicon Epitaxial Planar Transistors

designed for emitter-grounded AM and FM IF amplifier stages in which the negative pole of the supply voltage is grounded.

The BF 450 is designed for stages with AGC, and the BF 451 is designed for stages without AGC.



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

Weight approximately 0.18 g
Dimensions in mm

Absolute Maximum Ratings

	Symbol	Value	Unit
Collector Base Voltage	$-V_{CBO}$	40	V
Collector Emitter Voltage	$-V_{CEO}$	40	V
Emitter Base Voltage	$-V_{EBO}$	4	V
Collector Current	$-I_C$	25	mA
Base Current	$-I_B$	5	mA
Power Dissipation at $T_{amb} < 45\text{ }^{\circ}\text{C}$	P_{tot}	250 ¹⁾	mW
Junction Temperature	T_j	150	$^{\circ}\text{C}$
Storage Temperature Range	T_s	$-55 \dots +150$	$^{\circ}\text{C}$

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

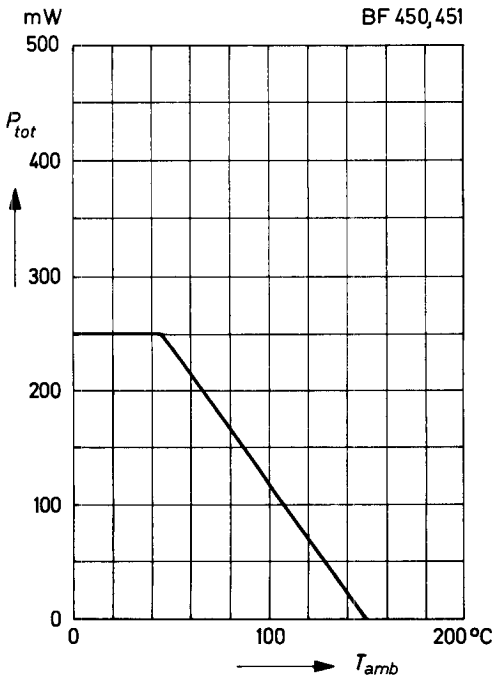
Characteristics at $T_{amb} = 25\text{ }^{\circ}\text{C}$

	Symbol	Min.	Typ.	Max.	Unit
DC Current Gain at $-V_{CE} = 10\text{ V}$, $-I_C = 1\text{ mA}$ BF450 BF451	h_{FE}	60	—	—	—
	h_{FE}	30	—	—	—
Collector Base Breakdown Voltage at $-I_C = 10\text{ }\mu\text{A}$	$-V_{(BR)CBO}$	40	—	—	V
Collector Emitter Breakdown Voltage at $-I_C = 2\text{ mA}$	$-V_{(BR)CEO}$	40	—	—	V
Thermal Resistance Junction to Ambient	R_{thA}	—	—	420 ¹⁾	K/W
Collector Cutoff Current at $-V_{CB} = 30\text{ V}$	$-I_{CBO}$	—	—	50	nA
Gain Bandwidth Product at $-V_{CE} = 10\text{ V}$, $-I_C = 1\text{ mA}$, $f = 100\text{ MHz}$	f_T	—	325	—	MHz
Feedback Capacitance at $-V_{CE} = 10\text{ V}$, $-I_C = 1\text{ mA}$, $f = 1\text{ MHz}$	$-C_{re}$	—	0.35	—	pF
Real Part of Output Admittance at $-V_{CE} = 10\text{ V}$, $-I_C = 1\text{ mA}$, $f = 0.5\text{ MHz}$	g_{oe}	—	—	8	μS
Noise Figure at $-V_{CE} = 10\text{ V}$, $-I_C = 1\text{ mA}$, $f = 100\text{ kHz}$, $R_G = 300\text{ }\Omega$	F	—	2	—	dB

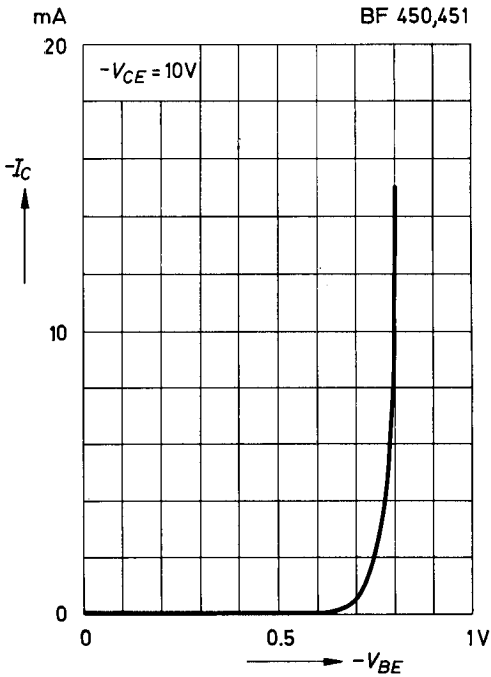
¹⁾ Valid provided that leads are kept at ambient temperature at a distance of 2 mm from case

Admissible power dissipation
versus ambient temperature

Valid provided that leads are kept at ambient
temperature at a distance of 2 mm from case

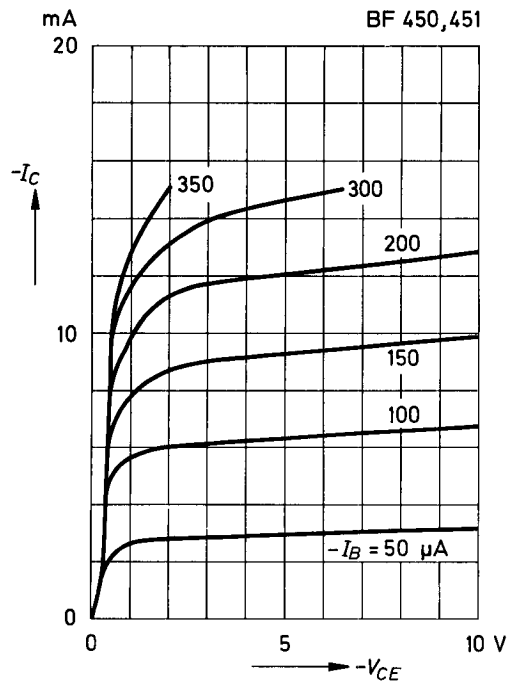


Collector current versus
base emitter voltage



BF450, BF451

Common emitter
collector characteristics



Gain bandwidth product
versus collector current

