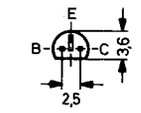
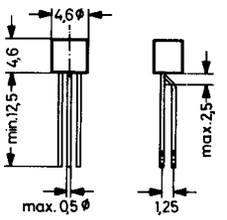
BF450, BF451

PNP Silicon Epitaxial Planar Transistors
disigned 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 ≈ 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 °C	P_{tot}	250[1)]	mW
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_S	−55 . . . +150	°C

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

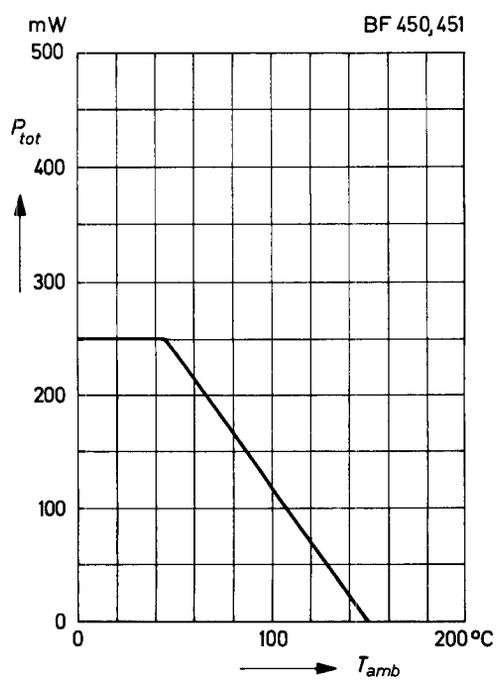
Characteristics at T_{amb} = 25 °C

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

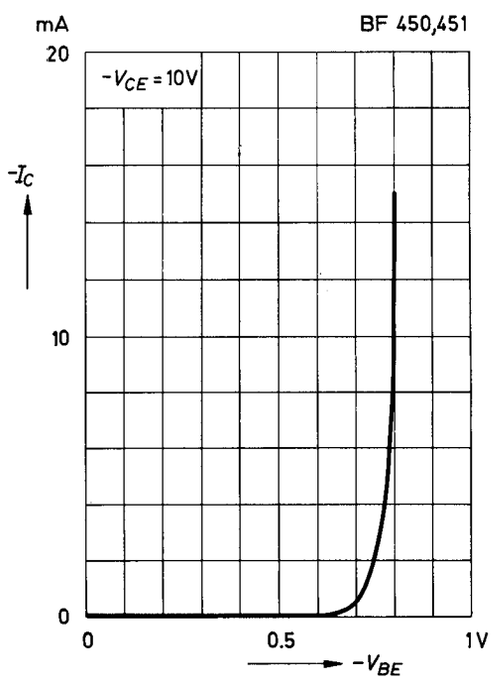
[1] Valid provided that leads are kept at ambient temperature at a distance of 2 mm from case

Admissible power dissipation versus ambient temperature

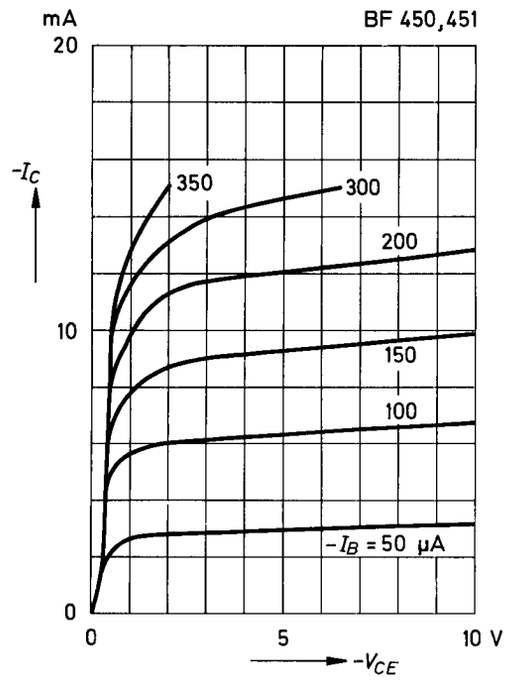
Valid provided that leads are kept at ambient temperature at a distance of 2 mm from case



Collector current versus base emitter voltage



Common emitter collector characteristics



Gain bandwidth product versus collector current