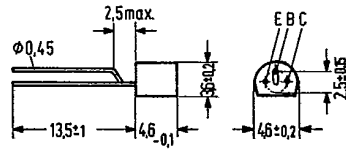


**for large-signal VHF stages**

BF 324 is an epitaxial PNP silicon planar transistor in TO 92 plastic package (10 A 3 DIN 41868). It is particularly outstanding for a low reverse transfer capacitance and is preferably used in common base configurations, e.g. in VHF tuner input stages.

Type	Ordering code
BF 324	Q62702-F311



Approx. weight 0.25 g Dimensions in mm

**Maximum ratings**

Collector-emitter voltage	$-V_{CEO}$	30	V
Collector-base voltage	$-V_{CBO}$	30	V
Emitter-base voltage	$-V_{EBO}$	4	V
Collector current	$-I_C$	25	mA
Base current	$-I_B$	5	mA
Junction temperature	$T_J$	150	°C
Storage temperature range	$T_{stg}$	-55 to +150	°C
Total power dissipation	$P_{tot}$	250	mW

**Thermal resistance**

Junction to ambient air	$R_{thJA}$	≤ 420	K/W
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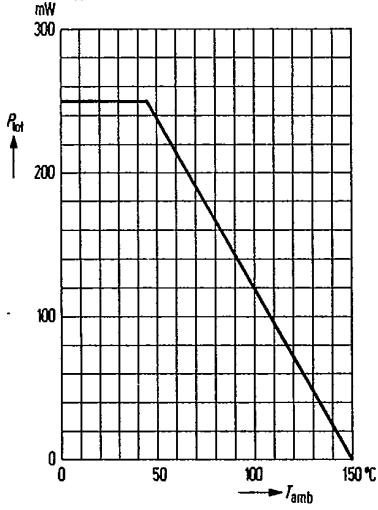
**Static characteristics** ( $T_{amb} = 25^{\circ}\text{C}$ )

Collector cutoff current ( $-V_{CB} = 30\text{ V}; I_E = 0$ )	$-I_{CBO}$	<50	nA
Collector-emitter breakdown voltage ( $-I_C = 10\text{ mA}; I_B = 0$ )	$-V_{(BR)CEO}$	>30	V
Emitter-base breakdown voltage ( $-I_E = 10\text{ }\mu\text{A}; I_C = 0$ )	$-V_{(BR)EBO}$	>4	V
DC current gain ( $-V_{CE} = 10\text{ V}; -I_C = 1\text{ mA}$ )	$h_{FE}$	45	-
( $-V_{CE} = 10\text{ V}; -I_C = 4\text{ mA}$ )	$h_{FE}$	50 (25 to 160)	-
Base-emitter voltage ( $-V_{CE} = 10\text{ V}; -I_C = 4\text{ mA}$ )	$-V_{BE}$	0.76	V

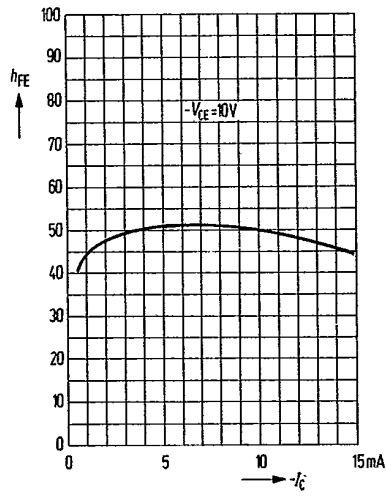
**Dynamic characteristics** ( $T_{amb} = 25^{\circ}\text{C}$ )

Transition frequency ( $f = 100\text{ MHz}$ ) ( $-I_C = 1\text{ mA}; -V_{CE} = 10\text{ V}$ )	$f_T$	350	MHz
( $-I_C = 4\text{ mA}; -V_{CE} = 10\text{ V}$ )	$f_T$	450	MHz
( $-I_C = 8\text{ mA}; -V_{CE} = 10\text{ V}$ )	$f_T$	440	MHz
Reverse transfer capacitance ( $-V_{CB} = 10\text{ V}; -V_{BE} = 0; f = 1\text{ MHz}$ )	$C_{12b}$	0.1	pF
Noise figure ( $-I_C = 2\text{ mA}; -V_{CE} = 10\text{ V};$ $f = 100\text{ MHz}; R_g = 60\text{ }\Omega$ )	$NF$	3	dB

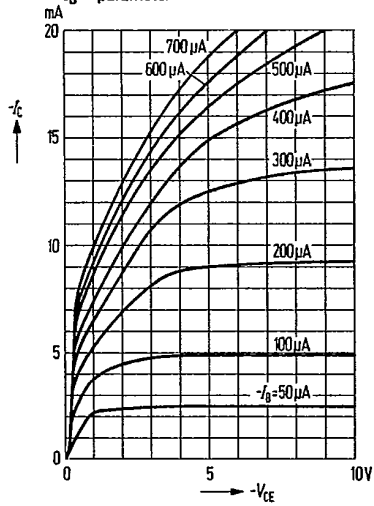
Total perm. power dissipation  
 versus temperature  
 $P_{tot} = f(T_{amb})$



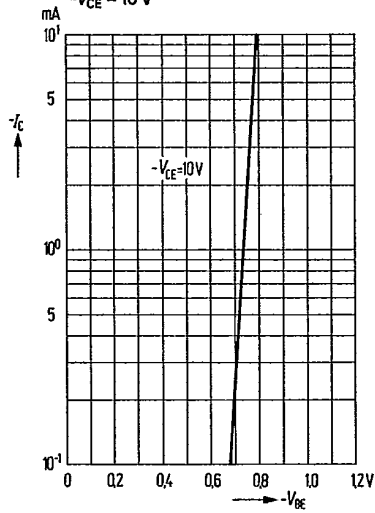
DC current gain  $h_{FE} = f(I_C)$   
 $-V_{CE} = 10V$



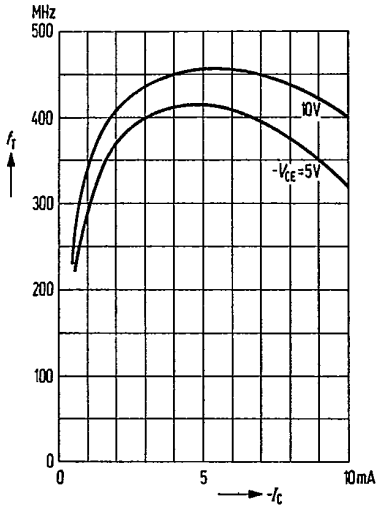
Output characteristics  $I_C = f(V_{CE})$   
 $I_B = \text{parameter}$



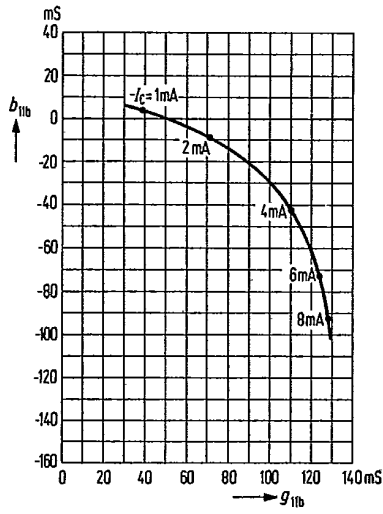
Input characteristic  $I_C = f(V_{BE})$   
 $-V_{CE} = 10V$



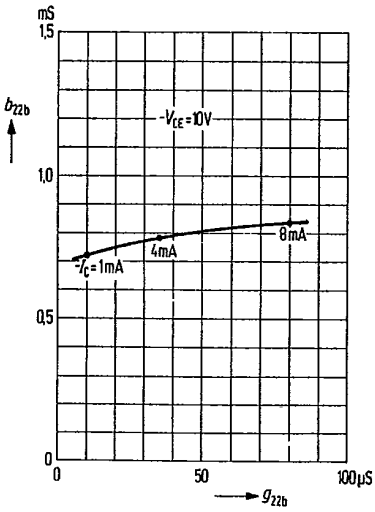
Transition frequency  $f_T = f(f_C)$   
 $V_{CE}$  = parameter,  $f = 100$  MHz



Input admittance  $Y_{11b}$   
(common base configuration)  
 $f = 100$  MHz;  $-V_{CE} = 10$  V



Output admittance  $Y_{22b}$   
(common base configuration)  
 $f = 100$  MHz;  $-V_{CE} = 10$  V



Short-circuit forward transfer admittance  
 $Y_{21b} = f(f_C)$   
(common base configuration)  
 $-V_{CE} = 10$  V

