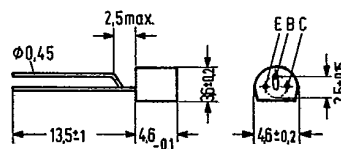


for large-signal VHF stages

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	$^{\circ}\text{C}$
Storage temperature range	T_{stg}	-55 to +150	$^{\circ}\text{C}$
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
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Collector-emitter breakdown voltage

($-I_C = 10\text{ mA}; I_B = 0$)

$-V_{(BR)CEO}$	>30	V
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Emitter-base breakdown voltage

($-I_E = 10\text{ }\mu\text{A}; I_C = 0$)

$-V_{(BR)EBO}$	>4	V
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DC current gain

($-V_{CE} = 10\text{ V}; -I_C = 1\text{ mA}$)

h_{FE}	45	-
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($-V_{CE} = 10\text{ V}; -I_C = 4\text{ mA}$)

h_{FE}	50 (25 to 160)	-
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Base-emitter voltage

($-V_{CE} = 10\text{ V}; -I_C = 4\text{ mA}$)

$-V_{BE}$	0.76	V
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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
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($-I_C = 4\text{ mA}; -V_{CE} = 10\text{ V}$)

f_T	450	MHz
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($-I_C = 8\text{ mA}; -V_{CE} = 10\text{ V}$)

f_T	440	MHz
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Reverse transfer capacitance

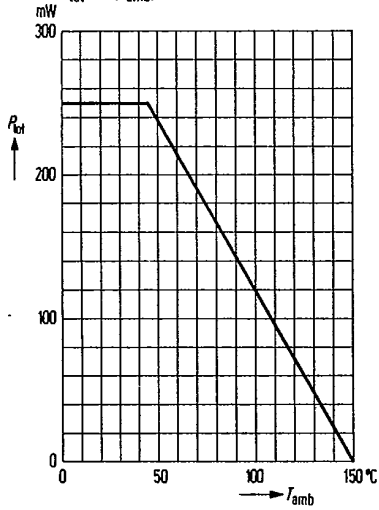
($-V_{CB} = 10\text{ V}; -V_{BE} = 0; f = 1\text{ MHz}$)

C_{12b}	0.1	pF
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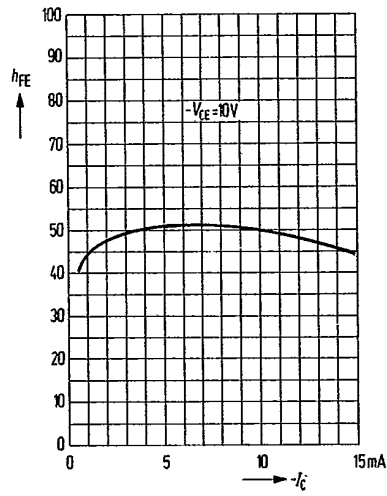
Noise figure ($-I_C = 2\text{ mA}; -V_{CE} = 10\text{ V};$ $f = 100\text{ MHz}; R_g = 60\text{ }\Omega$)

NF	3	dB
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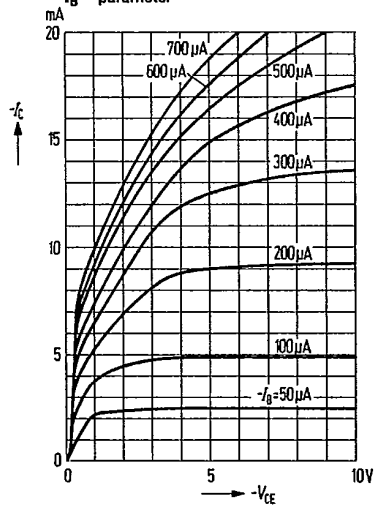
Total perm. power dissipation
versus temperature
 $P_{\text{tot}} = f(T_{\text{amb}})$



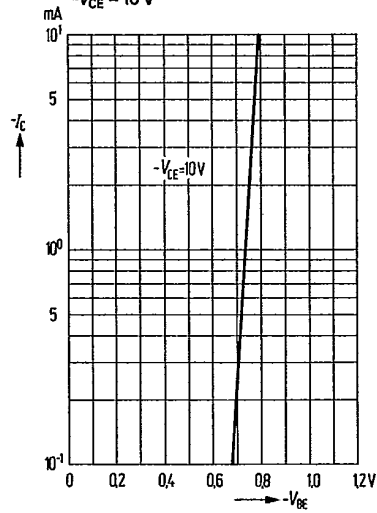
DC current gain $h_{FE} = f(I_C)$
 $-V_{CE} = 10 \text{ V}$



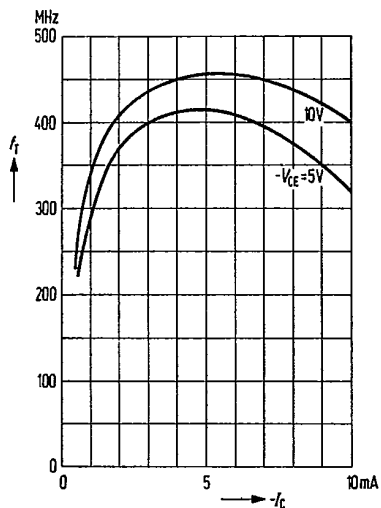
Output characteristics $I_C = f(V_{CE})$
 $I_B = \text{parameter}$



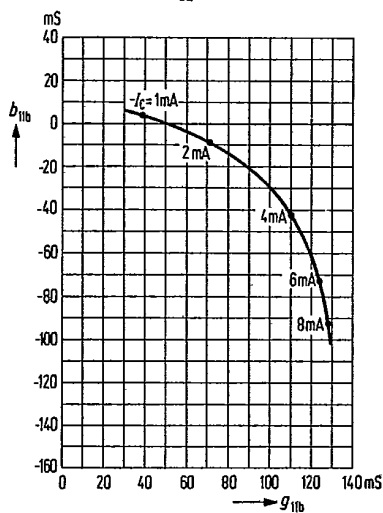
Input characteristic $I_C = f(V_{BE})$
 $-V_{CE} = 10 \text{ V}$



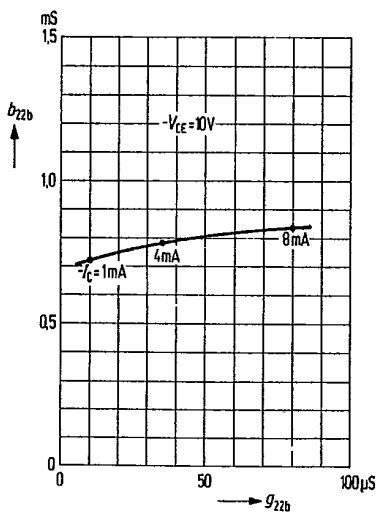
Transition frequency $f_T = f(f_C)$
 $V_{CE} = \text{parameter}, f = 100 \text{ MHz}$



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



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



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

