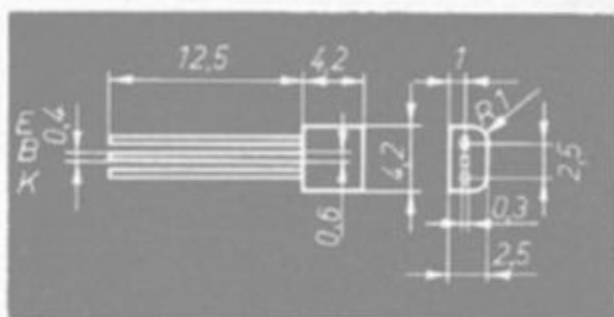


Abmessungen: Plastgehäuse

Masse ca. 0,1 g

Zulässige Höchstwerte gültig bis $\theta_{j\max}$

$U_{CB0} = 20\text{ V}$	$I_B = 10\text{ mA}$
$U_{CE0} = 15\text{ V}$	$P_{\text{tot}} = 200\text{ mW}$
$U_{EB0} = 5\text{ V}$	bei $\theta_a = 25^\circ\text{C}$
$I_C = 100\text{ mA}$	$\theta_j = 125^\circ\text{C}$
	$\theta_a = 100^\circ\text{C}$



Wärmewiderstand $R_{th} \leq 0,5 \frac{\text{grad}}{\text{mW}}$

Kennwerte für $\theta_a = 25^\circ\text{C} - 5\text{ grad}$

	Min.	Typ	Max.	Meßbedingungen	Stromverstärkungsgruppen
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Restströme

I_{CB0}		1 nA	100 nA	$U_{CB} = 20\text{ V}$	
I_{EB0}		1 nA	1 μA	$U_{EB} = 5\text{ V}$	

Durchbruchspannungen

$U_{(BR)CE0}$		40 V		$I_C = 100\text{ }\mu\text{A}$	
$U_{(BR)CB0}$	20 V	40 V		$I_C = 10\text{ }\mu\text{A}$	
$U_{(BR)EB0}$	5 V	8 V		$I_E = 10\text{ }\mu\text{A}$	

Sättigungsspannung

U_{CEsat}		0,35 V	0,6 V	$I_C = 10\text{ mA}$, $I_B = 1\text{ mA}$	
U_{BEsat}		0,85 V	1,1 V	$I_C = 10\text{ mA}$, $I_B = 1\text{ mA}$	

Basis-Emitter-Spannung

U_{BE}		0,73 V	0,85 V	$I_C = 10\text{ mA}$, $U_{CE} = 6\text{ V}$	
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Stromverstärkung

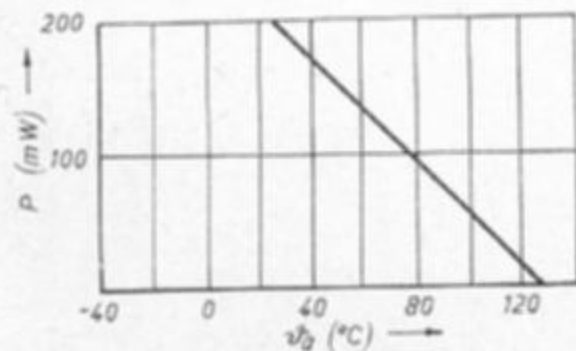
B	20	70		$U_{CE} = 6\text{ V}$, $I_C = 10\text{ mA}$	b
h_{210}	28		71	$U_{CE} = 6\text{ V}$, $I_C = 2\text{ mA}$	c
	56		140	$f = 1\text{ kHz}$	d
	112		280		e
	224		560		f
	450		1120		

	Min.	Typ	Max.	Meßbedingungen	Strom- verstärkungs- gruppen
Übergangsfrequenz					
f_T	300 MHz			$I_C = 10 \text{ mA}$, $U_{CE} = 6 \text{ V}$, $f = 100 \text{ MHz}$	
Rauschfaktor					
F		16 dB	25 dB	$U_{CE} = 6 \text{ V}$, $I_C = 200 \mu\text{A}$, $R_G = 500 \Omega$, $\Delta f = 850 \text{ Hz}$, $f = 1 \text{ kHz}$	
Vierpolparameter					
h_{11}	1,4 k Ω	2,3 k Ω		$U_{CE} = 6 \text{ V}$, $I_C = 2 \text{ mA}$, $f = 1 \text{ kHz}$	
h_{12}		$3,8 \cdot 10^{-4}$	$9,5 \cdot 10^{-4}$		
h_{21}	29				
h_{22}		48 μS	80 μS		

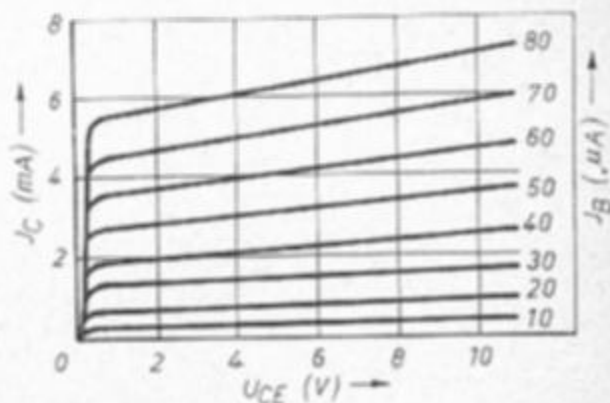
Bestellbeispiel für einen Transistor
der Stromverstärkungsgruppe b

Transistor SC 206 b

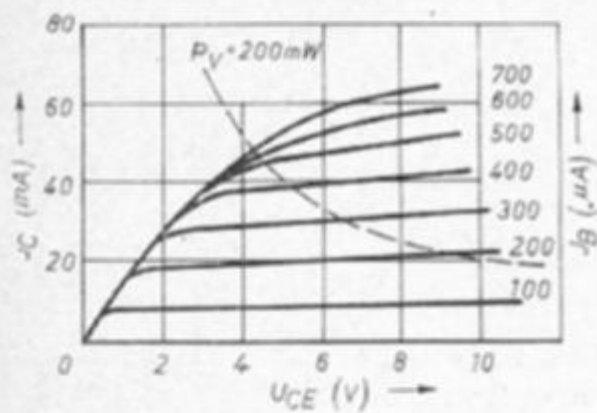
$P = f(\vartheta_a)$
(freitragende Montage)



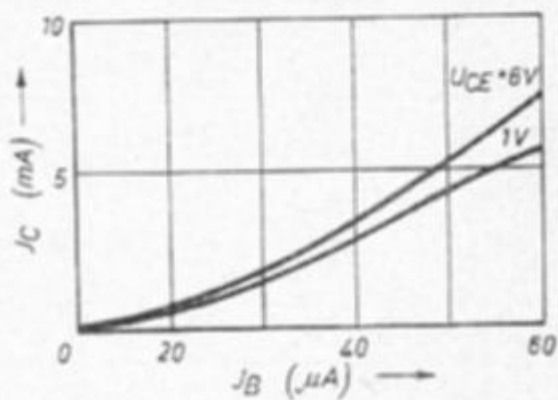
$J_C = f(U_{CE}, J_B)$



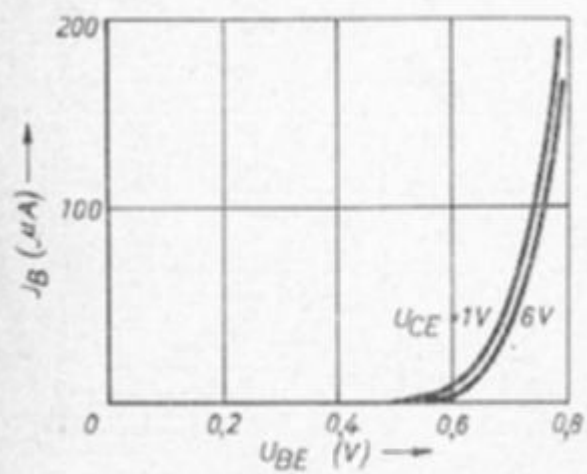
$$J_C = f(U_{CE}, J_B)$$



$$J_C = f(J_B)$$

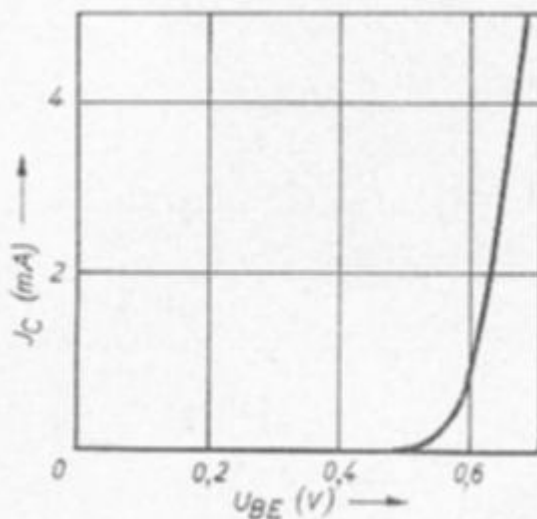


$$J_B = f(U_{BE})$$

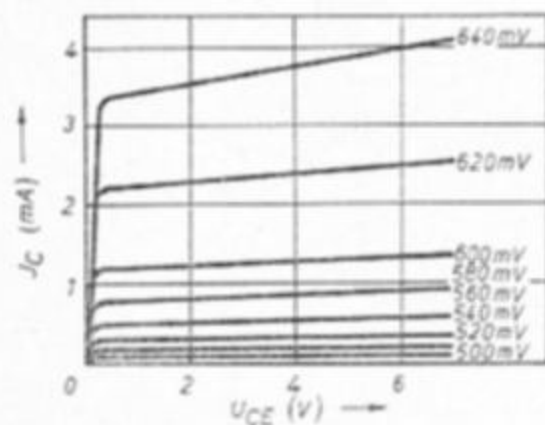


$$J_C = f(U_{BE})$$

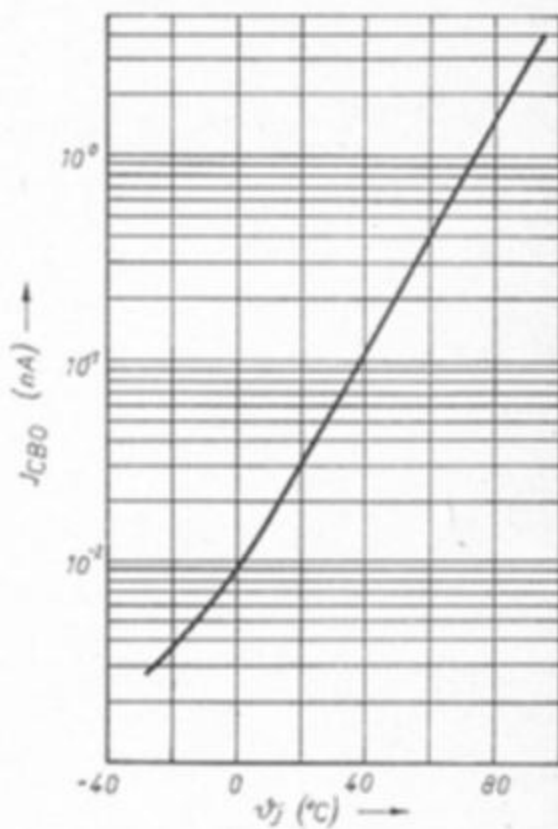
$$U_{CE} = 6 \text{ V}$$



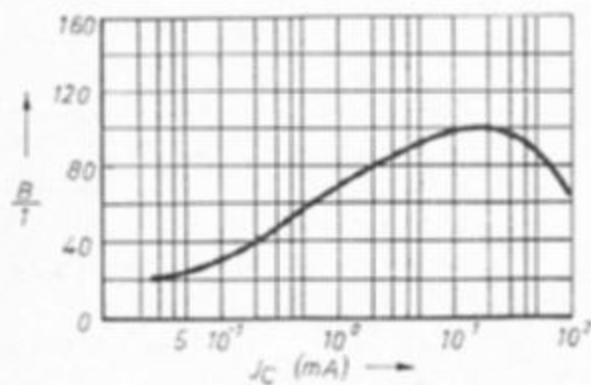
$J_C = f(U_{CE})$
Parameter U_{BE}



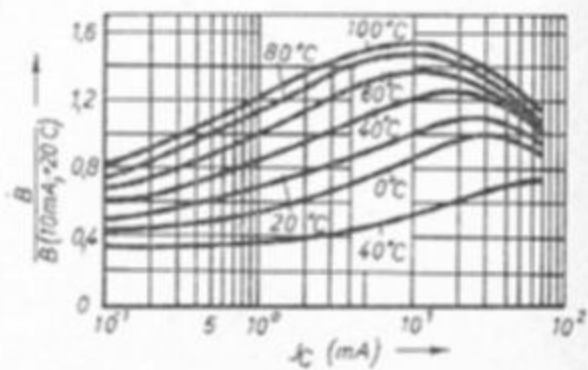
$J_{CB0} = f(\psi_J)$
 $U_{CB} = 20 \text{ V}$



$B = f(J_C)$
 $U_{CE} = 5 \text{ V}$

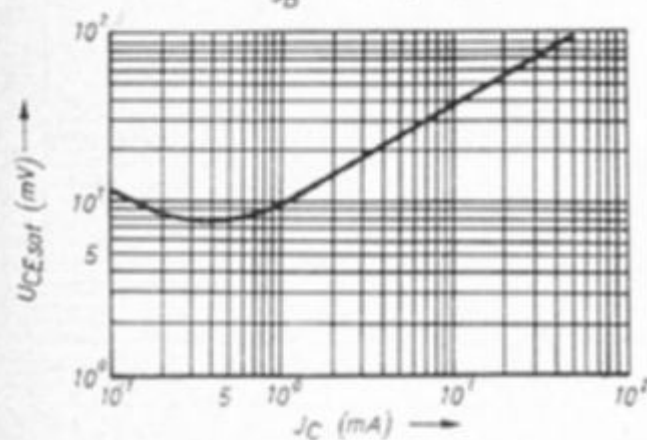


$B_{\text{normiert}} = f(J_C, \psi_J)$
 $U_{CE} = 5 \text{ V}$



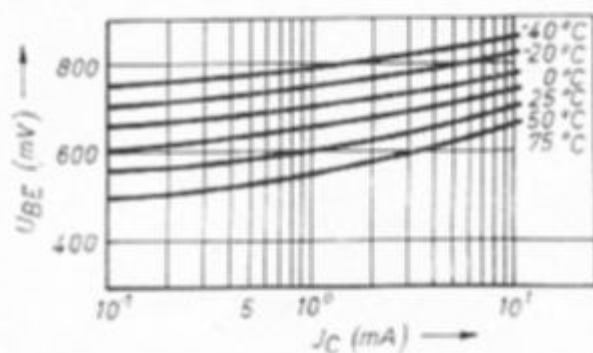
$$U_{CEsat} = f(J_C)$$

$$\frac{J_C}{J_B} = 10; \psi_j = 25^\circ\text{C}$$



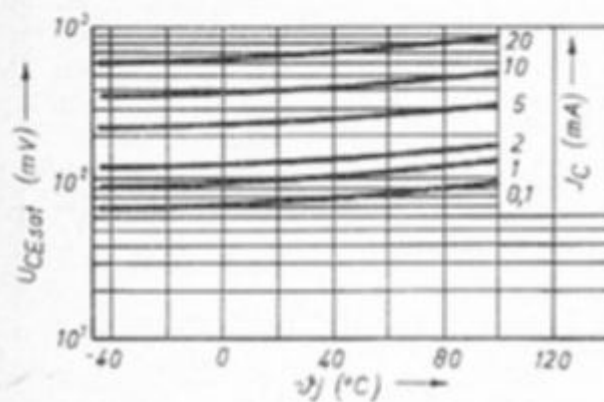
$$U_{BE} = f(J_C; \psi_j)$$

$$U_{CE} = 6\text{V}$$



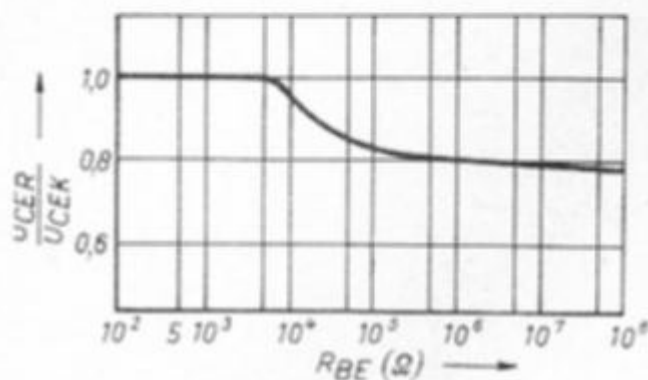
$$U_{CEsat} = f(J_C; \psi_j)$$

$$\frac{J_C}{J_B} = 10$$



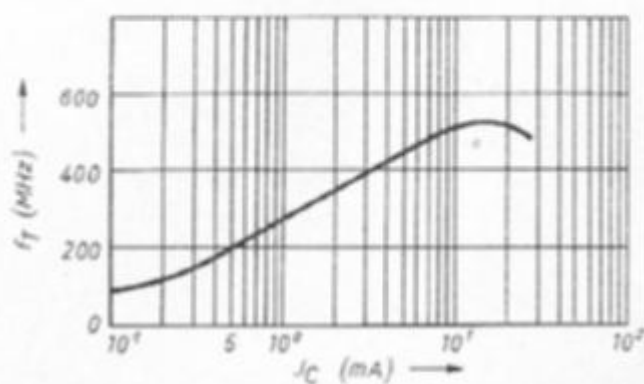
$$U_{CERnormiert} = f(R_{BE})$$

$$J_C = 100 \mu\text{A}$$



$$f_T = f(J_C)$$

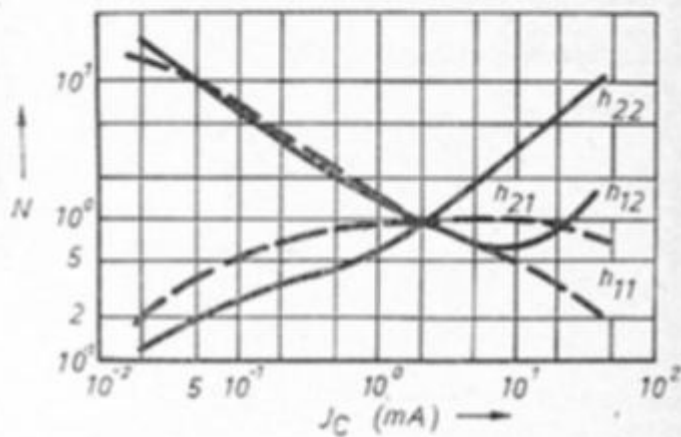
$$U_{CE} = 6\text{V}; f = 100\text{MHz}$$



h_e Parameter normiert

$$N = \frac{h(J_C)}{h(J_C = 2 \text{ mA})}$$

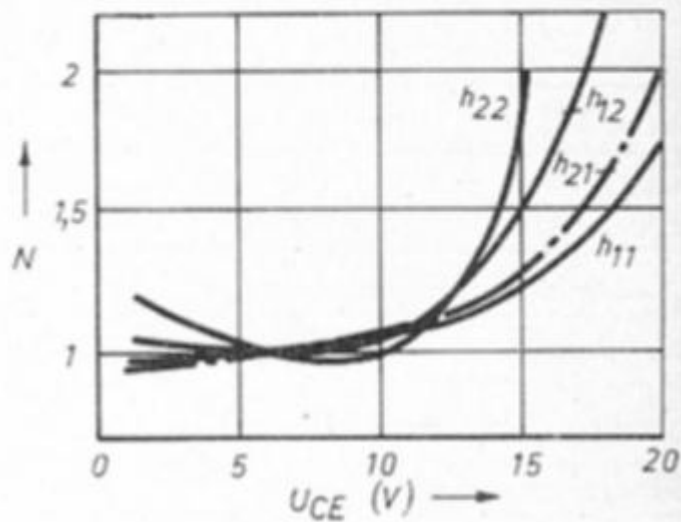
$$U_{CE} = 6 \text{ V}; f = 1 \text{ kHz}$$



h_e Parameter normiert

$$N = \frac{h(U_{CE})}{h(U_{CE} = 6 \text{ V})}$$

$$J_C = 2 \text{ mA}; f = 1 \text{ kHz}$$



h -Parameter normiert als $f(\vartheta_j)$

$$N = \frac{h(\vartheta_j)}{h(\vartheta_j = 25^\circ \text{C})}$$

