

SC 110

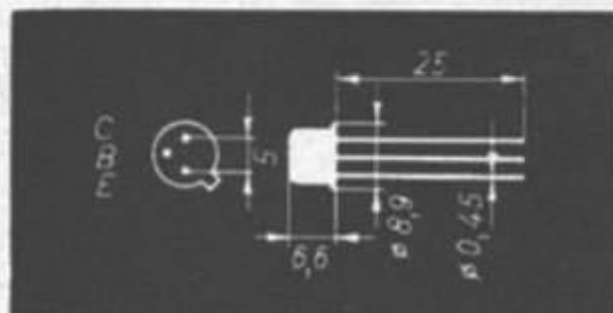
Verwendung: Silizium-npn-Planar-Epitaxie-Niederfrequenz-Transistor für universelle NF-Anwendungen bei Umgebungstemperaturen θ_a von -40°C bis $+125^\circ\text{C}$

Abmessungen: Bauform B 3/25a, TGL 11 811

Masse $\approx 1\text{ g}$

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

$U_{CB0} = 20\text{ V}$	$P_{\text{tot}} = 2,5\text{ W}$
$U_{CE0} = 20\text{ V}$	bei $\theta_c = 25^\circ\text{C}$
$U_{EB0} = 5\text{ V}$	$\theta_j = 175^\circ\text{C}$
$I_c = 250\text{ mA}$	$\theta_a = 125^\circ\text{C}$
$P_{\text{tot}} = 600\text{ mW}$	
bei $\theta_a = 25^\circ\text{C}$	



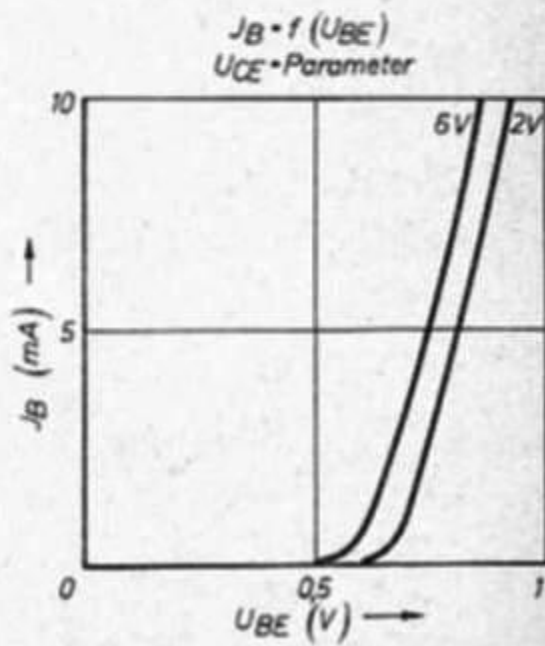
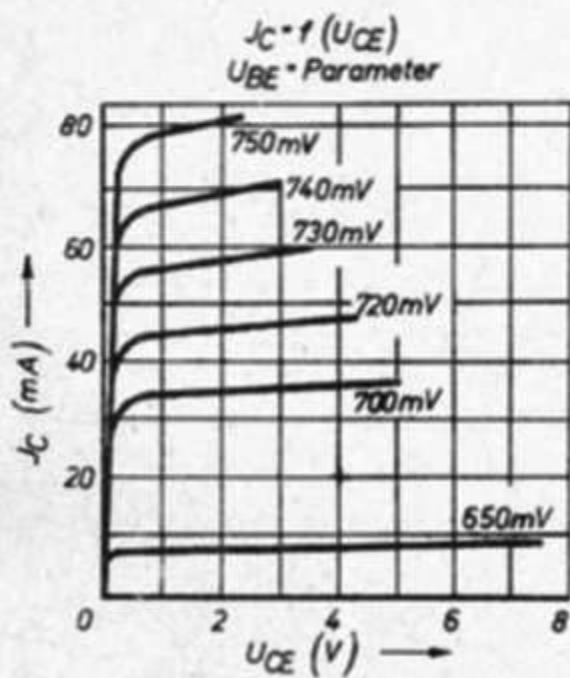
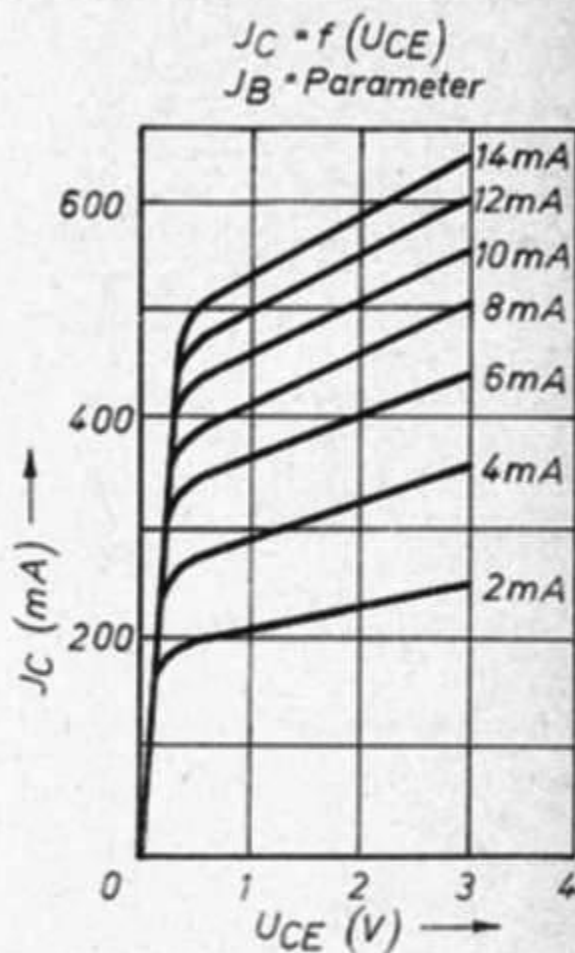
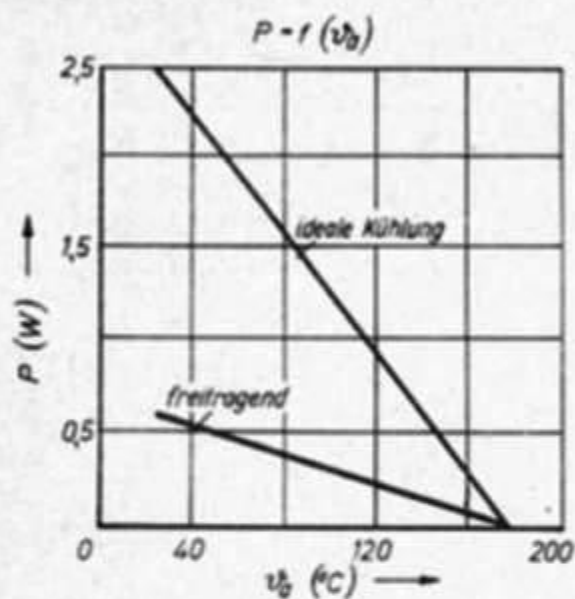
Wärmewiderstand $R_{th} \leq 250 \frac{\text{grad}}{\text{W}}$
 $R_{thl} \leq 60 \frac{\text{grad}}{\text{W}}$

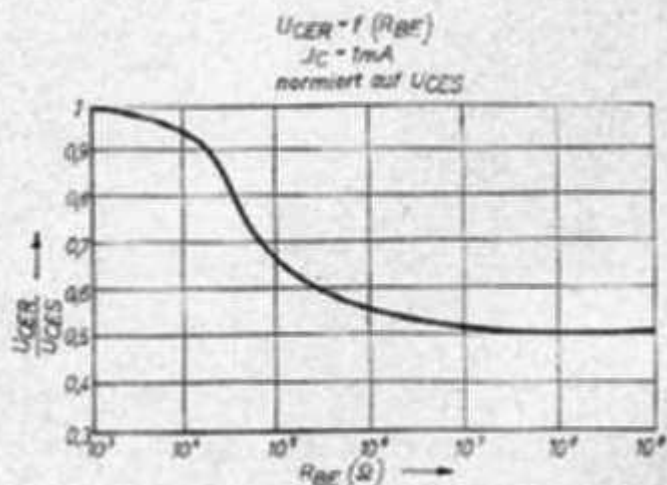
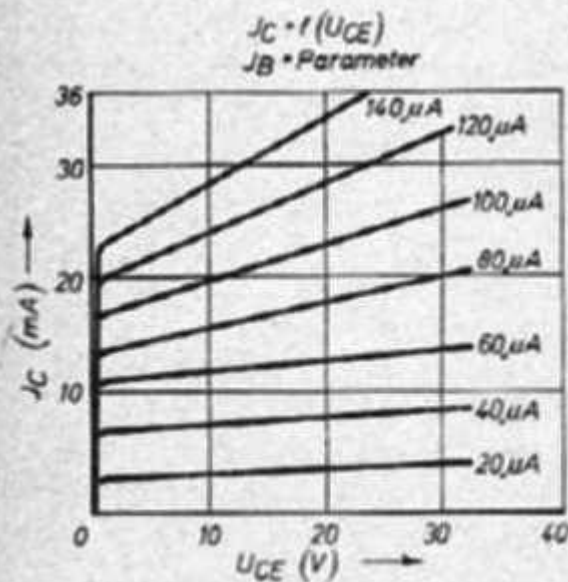
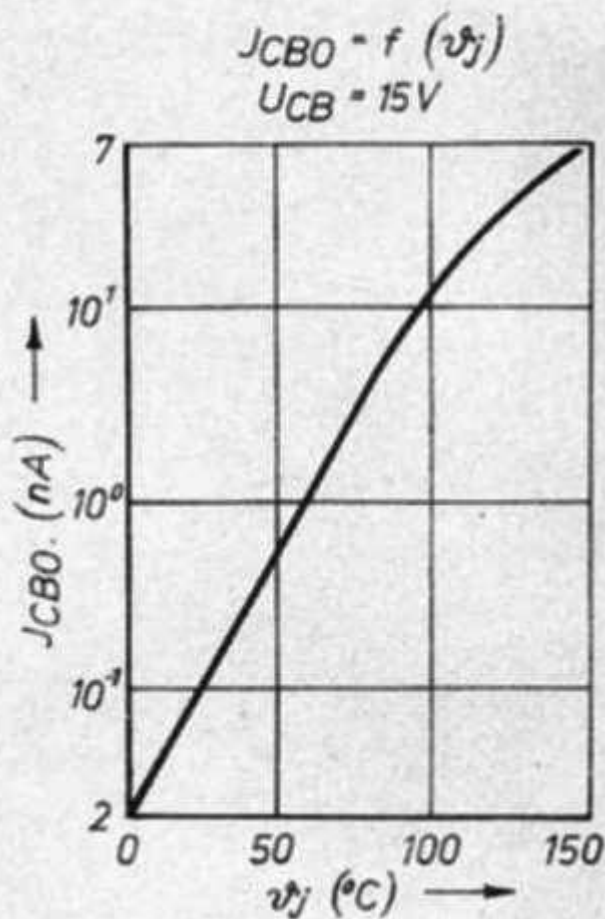
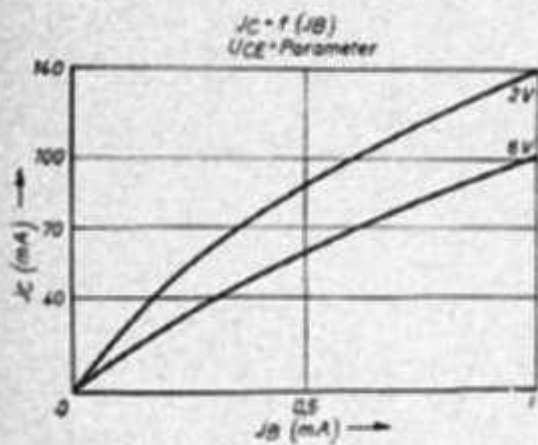
Kennwerte für $\theta_a = 25^\circ\text{C} -5\text{ grad}$

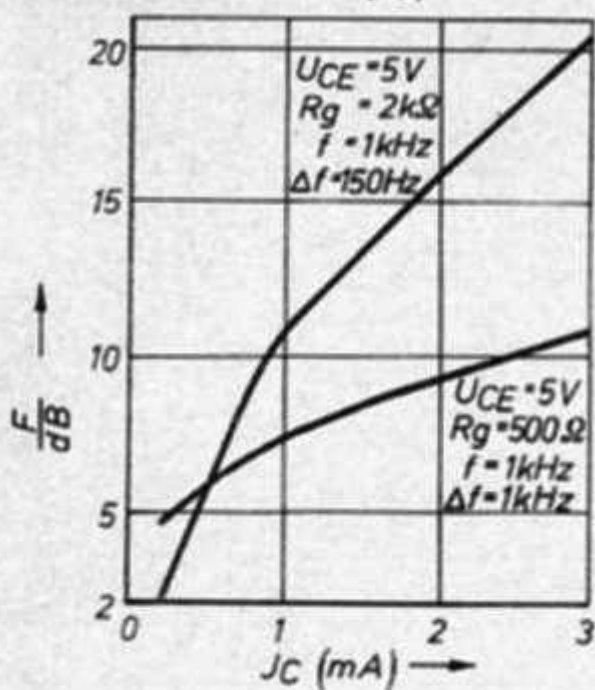
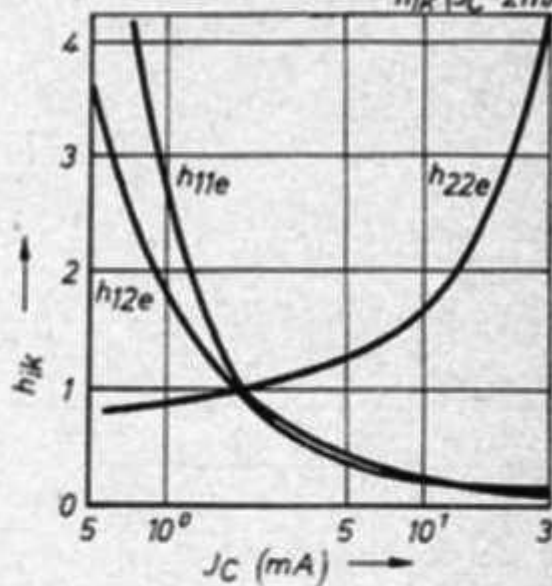
	Min.	Typ	Max.	Meßbedingungen	Stromverstärkungsgruppen
Restströme					
I_{CBO}			25 nA	$U_{CB} = 15\text{ V}$	
Durchbruchspannungen					
$U_{(BR)CBO}$	20 V			$I_c = 5\text{ }\mu\text{A}$	
$U_{(BR)CEO}$	20 V			$I_c = 50\text{ mA}$	
$U_{(BR)EBO}$	5 V			$I_E = 5\text{ }\mu\text{A}$	
Sättigungsspannung					
U_{CEsat}			0,6 V	$I_c = 150\text{ mA}, I_B = 15\text{ mA}$	
Gleichstromverstärkung					
B	18			$U_{CE} = 2\text{ V}, I_c = 50\text{ mA}$	
B	18		35		A
B	29		70		B
B	57		139		C
B	113		276		D
B	226		550		E
Übergangsfrequenz					
f_T	40 MHz			$U_{CE} = 10\text{ V}, I_c = 10\text{ mA}, f = 15\text{ MHz}$	

Bestellbeispiel für einen Transistor der Stromverstärkungsgruppe B

Transistor SC 110 B





$F = f(J_C)$  h -Parameter (normiert) $= f(J_C)$ $U_{CE} = 6V$ $f = 1kHz$ $h_{ik} \text{ normiert} = \frac{h_{ik}(J_C)}{h_{ik}(J_C = 2mA)}$  $B = f(J_C)$ 