

TRIODE-HEXODE for use as frequency changer and phase inverter

TRIODE-HEXODE pour utilisation en changeuse de fréquence et comme tube inverseur de phase

TRIODE-HEXODE zur Verwendung als Mischröhre und Phasenumkehrerröhre

Heating : indirect; series supply
 Chauffage: indirect; alimentation- série
 Heizung : indirekt; Serienspeisung

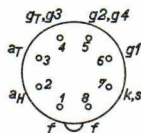
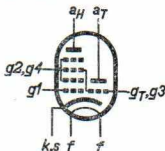
$V_f = 14 \text{ V}$
 $I_f = 100 \text{ mA}$

Base, culot, Sockel: RIMLOCK

Overall length: 60 mm
 See pages 203 and 252

Hauteur totale: 60 mm
 Voir pages 203 et 252

Gesamthöhe : 60 mm
 Siehe S.203 und 252



Capacitances $C_{g1} = 4,0 \text{ pF}$

Capacités $C_a = 9,4 \text{ pF}$

Kapazitäten $C_{aH-g1} < 0,1 \text{ pF}$

$C_{g1f} < 0,15 \text{ pF}$

$C_{gT, g3} = 5,9 \text{ pF}$

$C_{aT} = 2,4 \text{ pF}$

$C_{aT-gT, g3} = 1,3 \text{ pF}$

$C_{g1-gT, g3} < 0,35 \text{ pF}$

$C_{aH-gT, g3} < 0,2 \text{ pF}$

Triode section; Partie triode; Triodenteil

Typical characteristics

Caractéristiques types

Kenndaten

$V_a = 100 \text{ V}$

$V_g = 0 \text{ V}$

$I_a = 10 \text{ mA}$

$S = 2,8 \text{ mA/V}$

$\mu = 16$

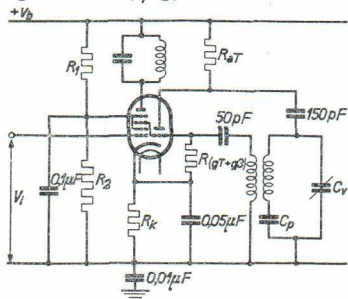
Operating characteristics as oscillator

Caractéristiques d'utilisation en oscillatrice

Betriebsdaten als Oszillator

V_b	=	100	170	200	V			
R_a	=	10	10	22	$k\Omega$			
V_{osc}	=	4	8	8	V_{eff}			
$R_{gT, g3}$	=	$\overbrace{22 \quad 47}$	$\overbrace{22 \quad 47}$	$\overbrace{22 \quad 47}$	$k\Omega$			
$I_{gT, g3}$	=	175	100	350	200	350	200	μA
I_a	=	3,4	3,1	6,5	5,7	5,5	5,2	mA
S_{eff}	=	0,7	0,6	0,75	0,65	0,65	0,55	mA/V

Betriebsdaten als Mischröhre (Schirmgitterspannung über einen Spannungsteiler R_1, R_2)



$V_a = V_b =$	100	170	200	V
$R_1 =$	18	18	18	$k\Omega$
$R_2 =$	27	27	27	$k\Omega$
$R_k =$	180	180	180	Ω
$R_{gT, g3} =$	22	22	22	$k\Omega$
$I_{gT, g3} =$	$175^{1)}$	$350^{1)}$	$350^{1)}$	μA
$V_{g1} =$	$-1,0$	$-1,85$	-2	V
$V_{g2, g4} =$	43	70	85	V
$I_a =$	1,2	2,1	3,0	mA
$I_{g2, g4} =$	1,46	2,6	3,0	mA
$S_c =$	530	670	750	$\mu A/V$
$R_i =$	>1	>1	>1	$M\Omega$
$R_{eq} =$	60	65	75	$k\Omega$

1) For $R_{gT, g3} = 47 \text{ k}\Omega$, $I_{gT, g3}$ should be adjusted to $200 \text{ }\mu\text{A}$ at $V_a = 200 \text{ V}$ or 170 V and to $100 \text{ }\mu\text{A}$ at $V_a = 100 \text{ V}$

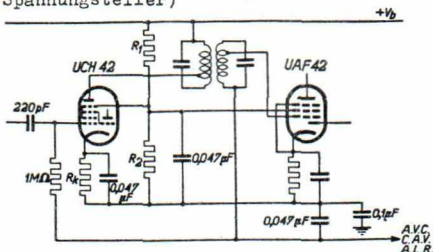
Pour $R_{gT,g3}=47\text{ k}\Omega$, $I_{gT,g3}$ sera réglé à $200\text{ }\mu\text{A}$ avec $V_a=200\text{ V}$ ou 170 V et à $100\text{ }\mu\text{A}$ avec $V_a=100\text{ V}$

Für $R_{g1,g3}=47\text{ k}\Omega$, ist $I_{gT,g3}$ auf $200\mu\text{A}$ einzustellen wenn $V_a=200\text{V}$ oder 170V und auf $100\mu\text{A}$ wenn $V_a=100\text{V}$

Operating characteristics as frequency changer (screen grids of UCH 42 and UAF 42 fed from a common potentiometer)

Caractéristiques d'utilisation changeuse de fréquence (grilles-écran des tubes UCH 42 et UAF 42 connectées à un potentiomètre commun)

Betriebsdaten als Mischröhre (die Schirmgitter der Röhren UCH 42 und UAF 42 verbunden mit einem gemeinsamen Spannungsteiler)



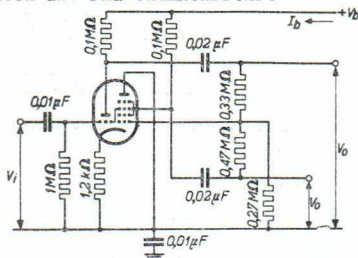
$V_a = V_b =$	170	100	V
$R_1 =$	15	15	kΩ
$R_2 =$	22	22	kΩ
$R_k =$	180	180	Ω
$R_{gT, g3} =$	22	22	kΩ
$I_{gT, g3} =$	350 ¹⁾	175 ¹⁾	μA
$V_{g1} =$	-1,8 -15,5	-1 -9,6	V
$V_{g2, g4} =$	70 99	43 58	V
$I_a =$	2,1 -	1,2 -	mA
$I_{g2, g4} =$	2,6 -	1,46 -	mA
$S_c =$	670 20	530 14	μA/V
$R_i =$	>1 >4	>1 >2	MΩ
$R_{eq} =$	66 -	60 -	kΩ

¹⁾ For $R_{gT, g3} = 47$ kΩ, $I_{gT, g3}$ should be adjusted to 200 μA at $V_a = 200$ V or 170 V and to 100 μA at $V_a = 100$ V

Pour $R_{gT, g3} = 47$ kΩ, $I_{gT, g3}$ sera réglé à 200 μA avec $V_a = 200$ V ou 170 V et à 100 μA avec $V_a = 100$ V

Für $R_{gT, g3} = 47$ kΩ, ist $I_{gT, g3}$ auf 200 μA einzustellen wenn $V_a = 200$ V oder 170 V und auf 100 μA wenn $V_a = 100$ V

Operating characteristics as phase inverter
Caractéristiques d'utilisation comme tube inverseur
Betriebsdaten als Phasenumkehrrohre



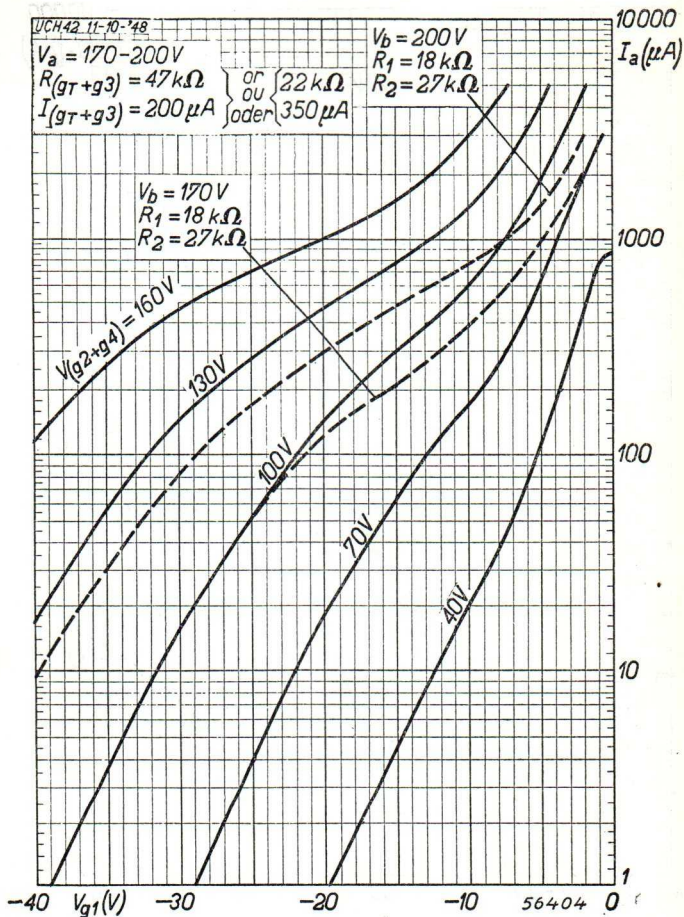
V_b (V)	I_b (mA)	$\frac{V_o}{V_i}$	$d_{tot} (\%)$ ($V_o=5V_{eff}$)	$d_{tot} (\%)$ ($V_o=10V_{eff}$)
100	1,4	11	1,9	
165	2,4	11	1,5	1,6

Limiting values of the hexode section
Caractéristiques limites de la partie hexode
Grenzdaten des Hexodenteiles

V_{a0}	= max.	550 V
V_a	= max.	250 V
W_a	= max.	1,5 W
$V_{g2, g40}$	= max.	550 V
$V_{g2, g4} (I_a=3mA)$	= max.	125 V
$V_{g2, g4} (I_a<1mA)$	= max.	250 V
$W_{g2, g4}$	= max.	0,3 W
$V_{g1} (I_{g1}=+0,3\mu A)$	= max.	-1,3 V
I_k	= max.	10 mA
R_{g1}	= max.	3 MΩ
R_{g3}	= max.	3 MΩ
R_{kf}	= max.	20 kΩ
V_{kf}	= max.	150 V

Limiting values of the triode section
Caractéristiques limites de la partie triode
Grenzdaten des Triodenteiles

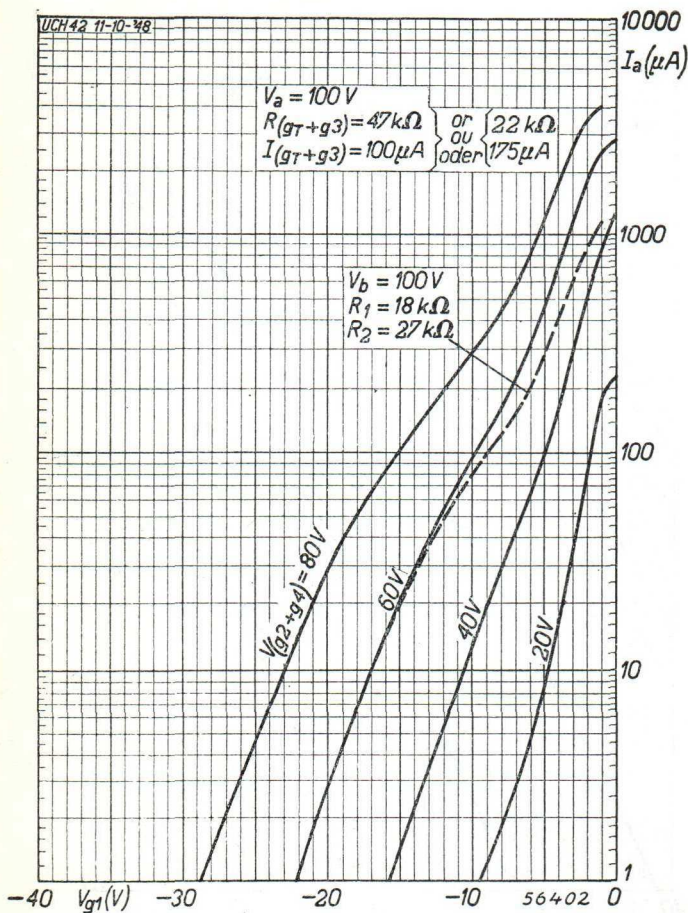
V_{a0}	= max.	550 V	$V_g (I_g=+0,3\mu A)$	= max.	-1,3 V
V_a	= max.	175 V	I_k	= max.	6 mA
W_a	= max.	0,8 W	R_g	= max.	3 MΩ

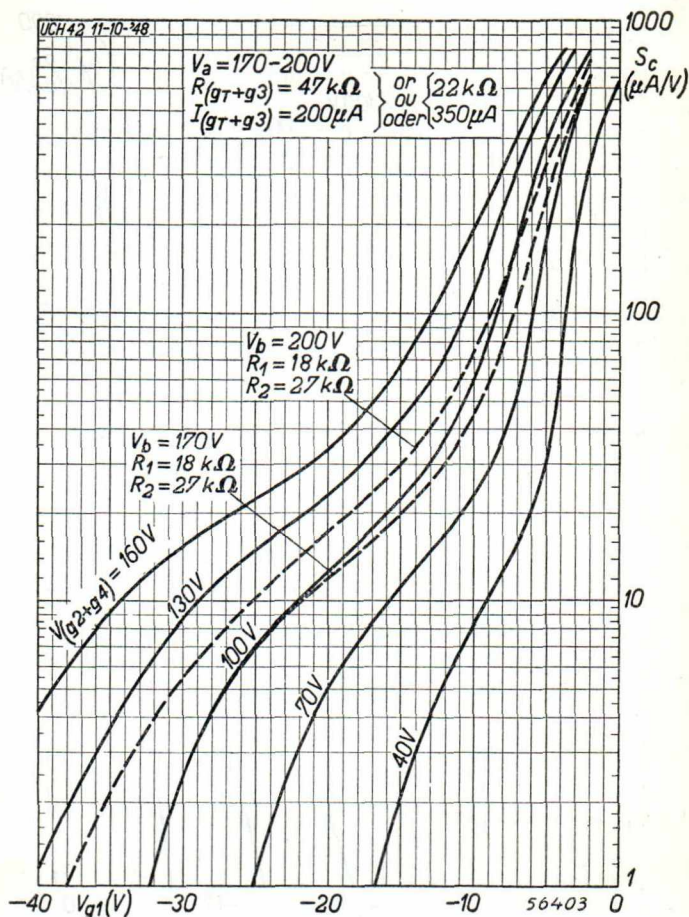


UCH 42

PHILIPS

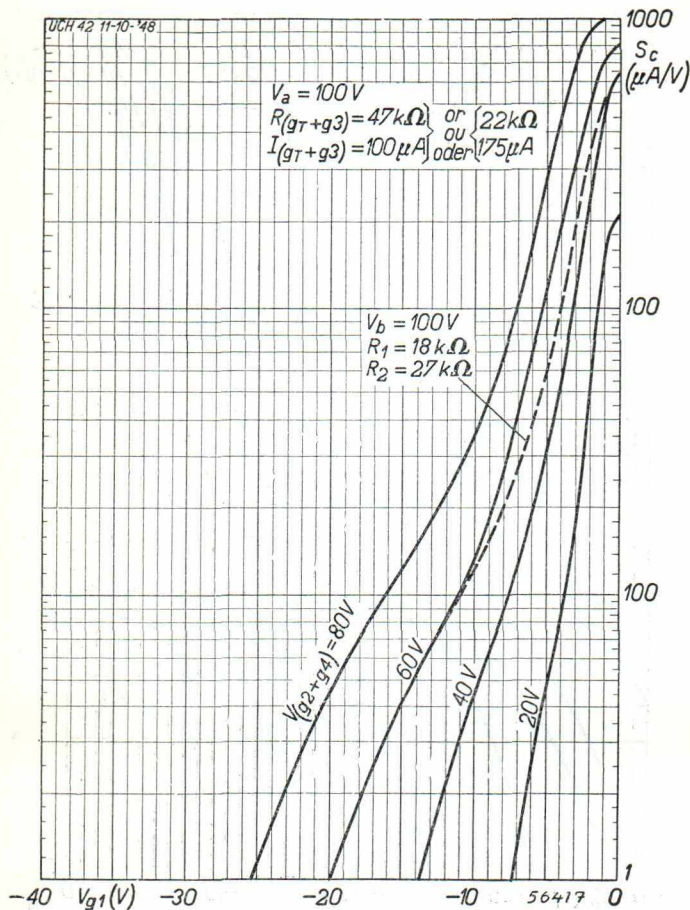
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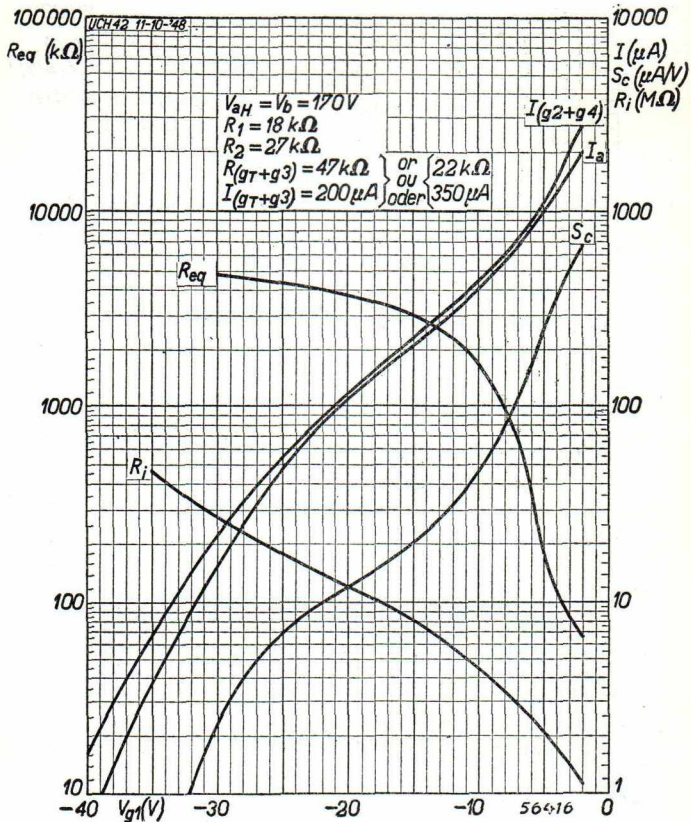




UCH 42

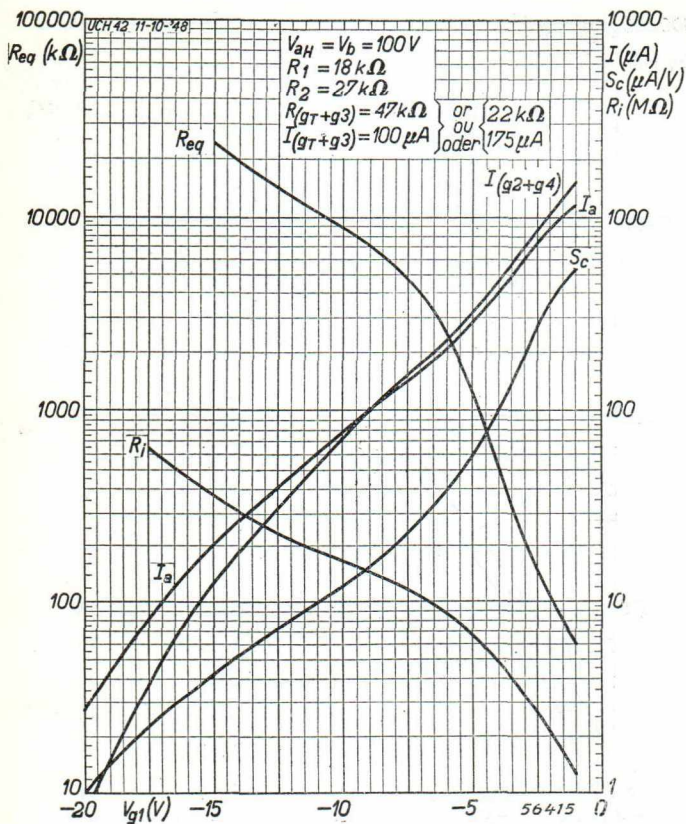
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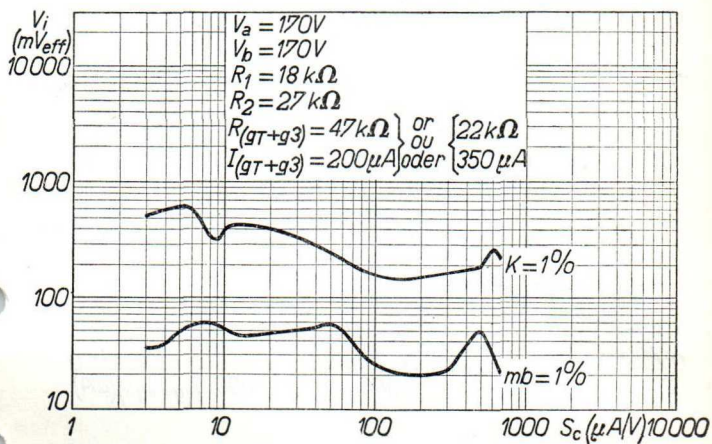
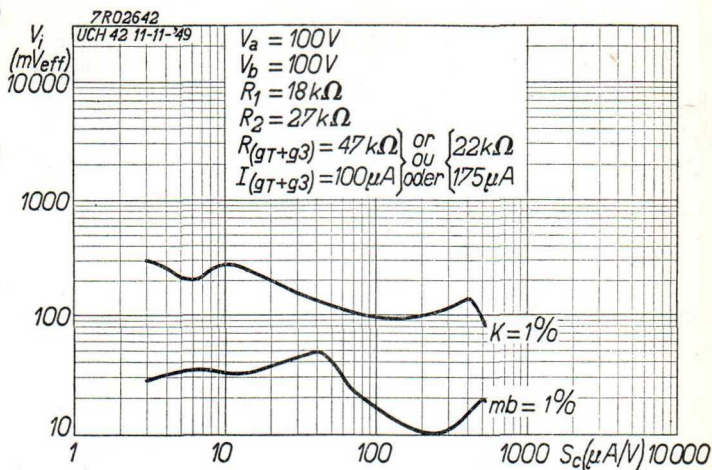




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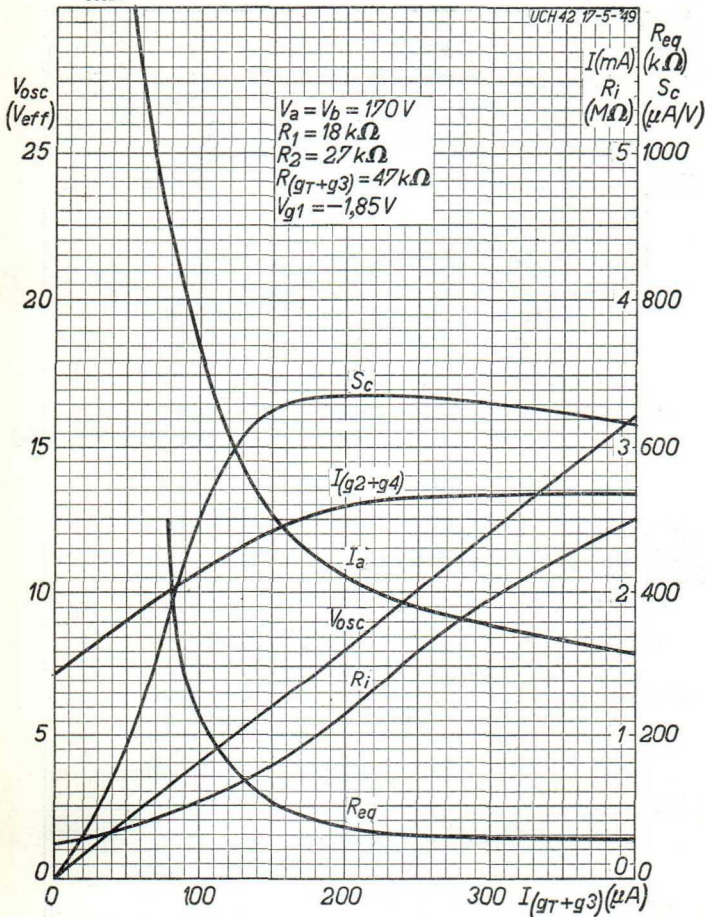
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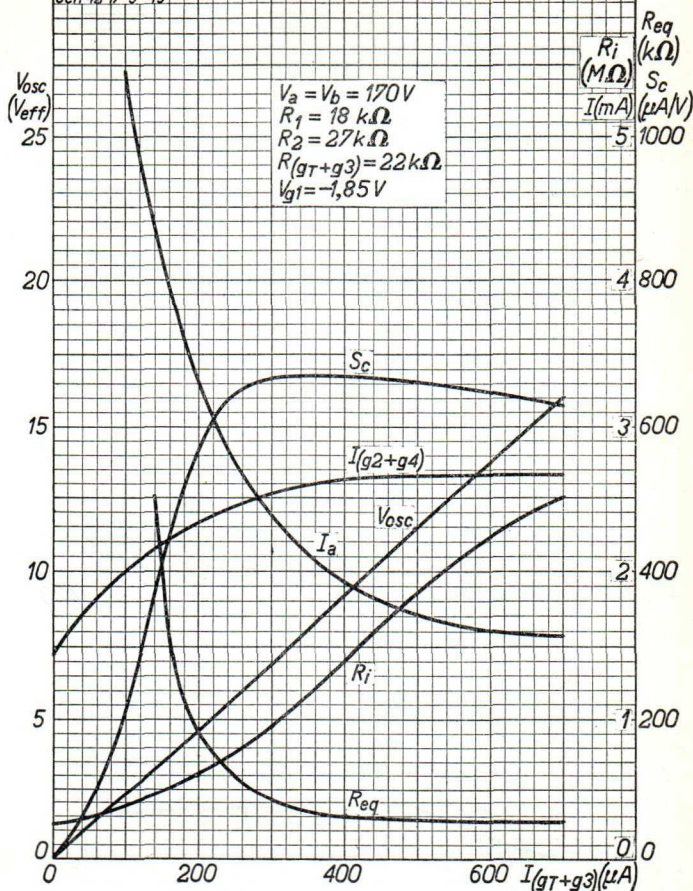
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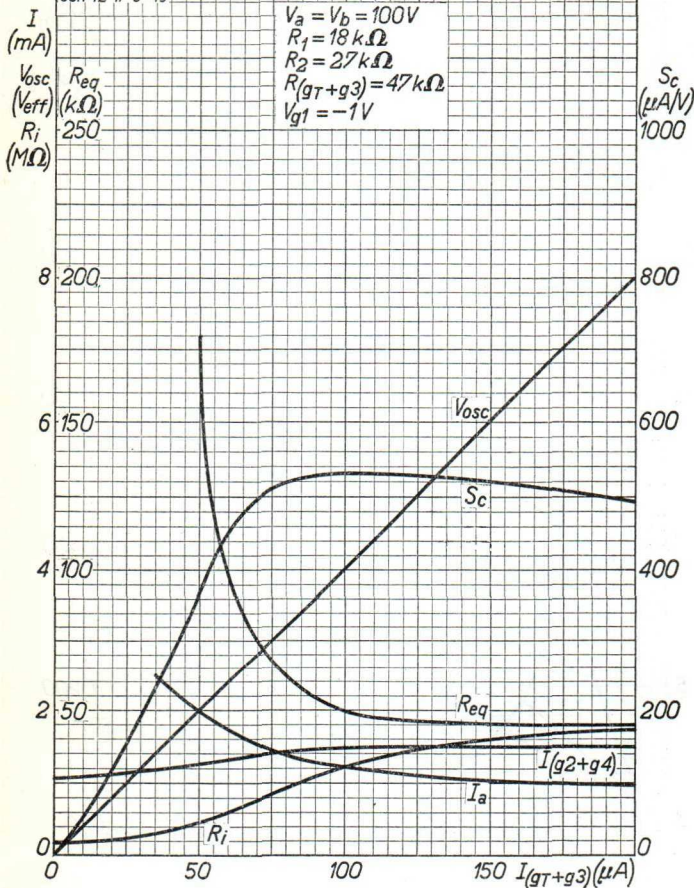


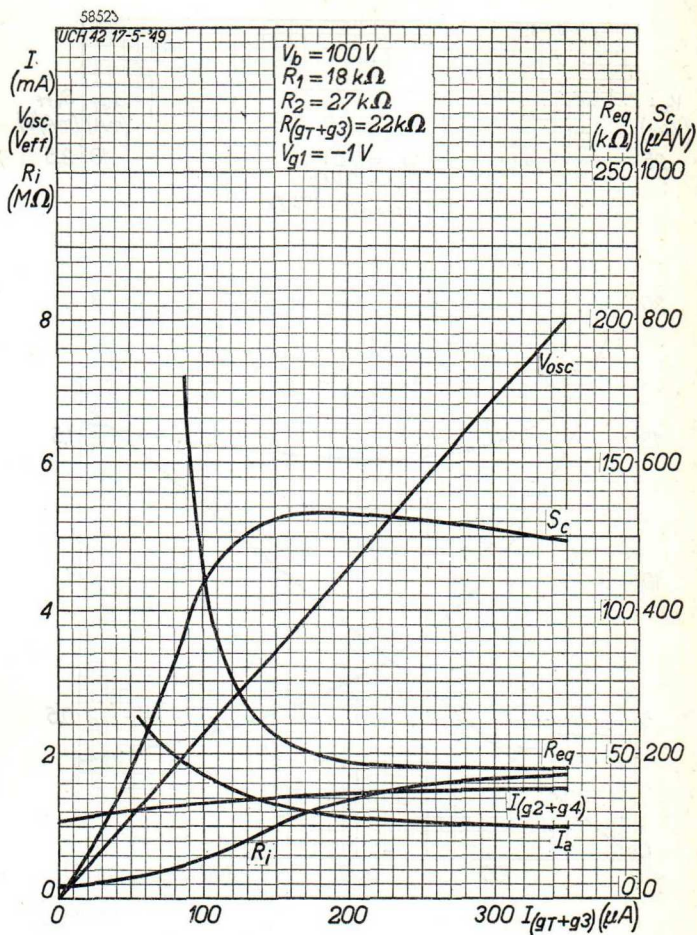
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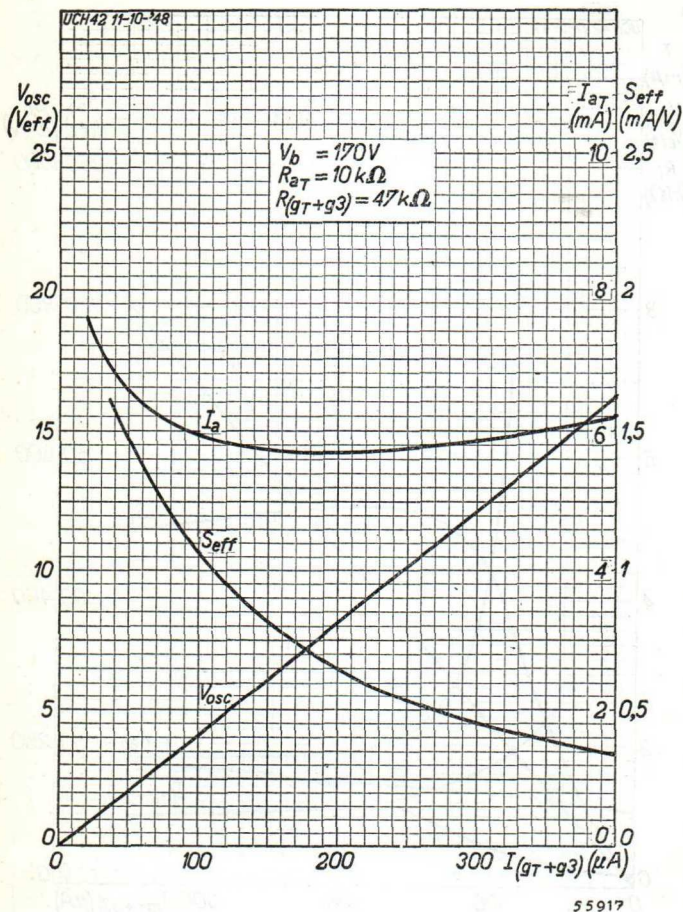
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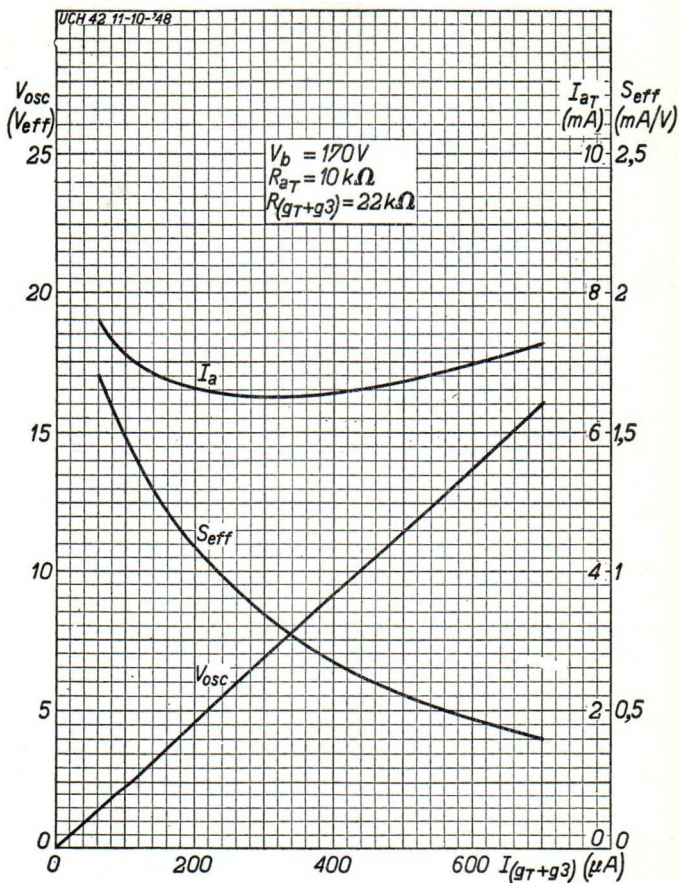




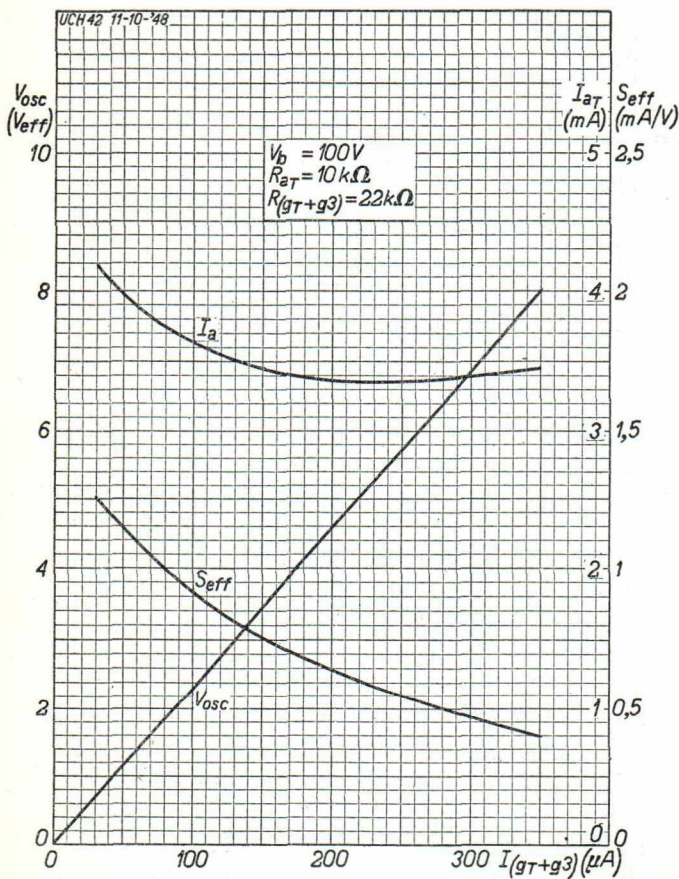
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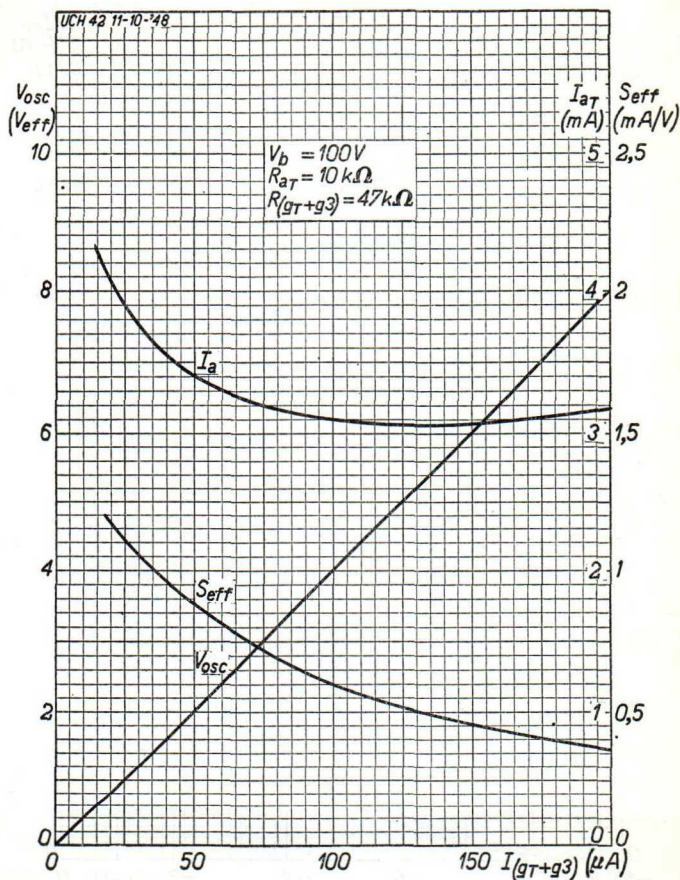




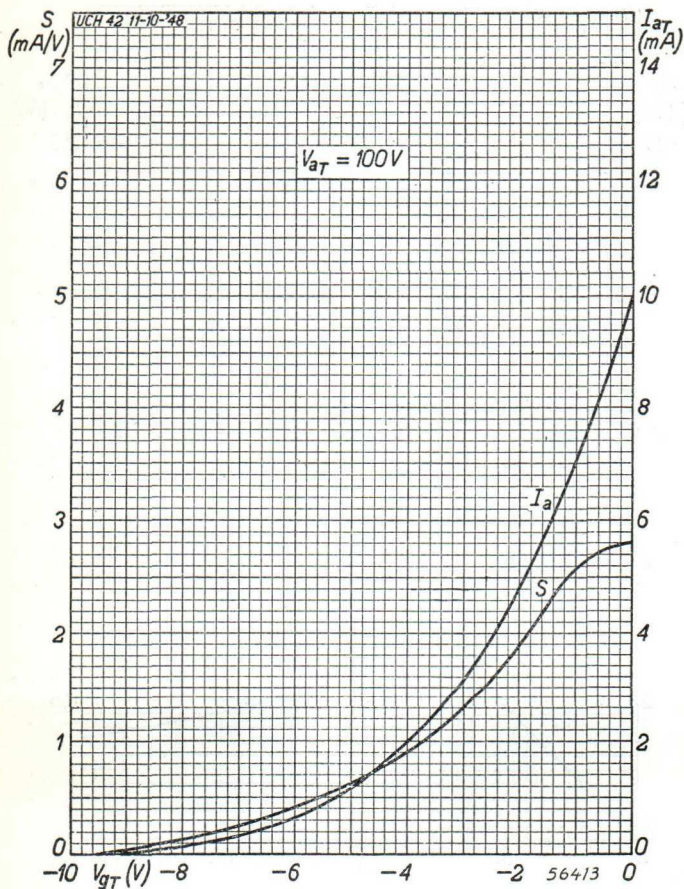
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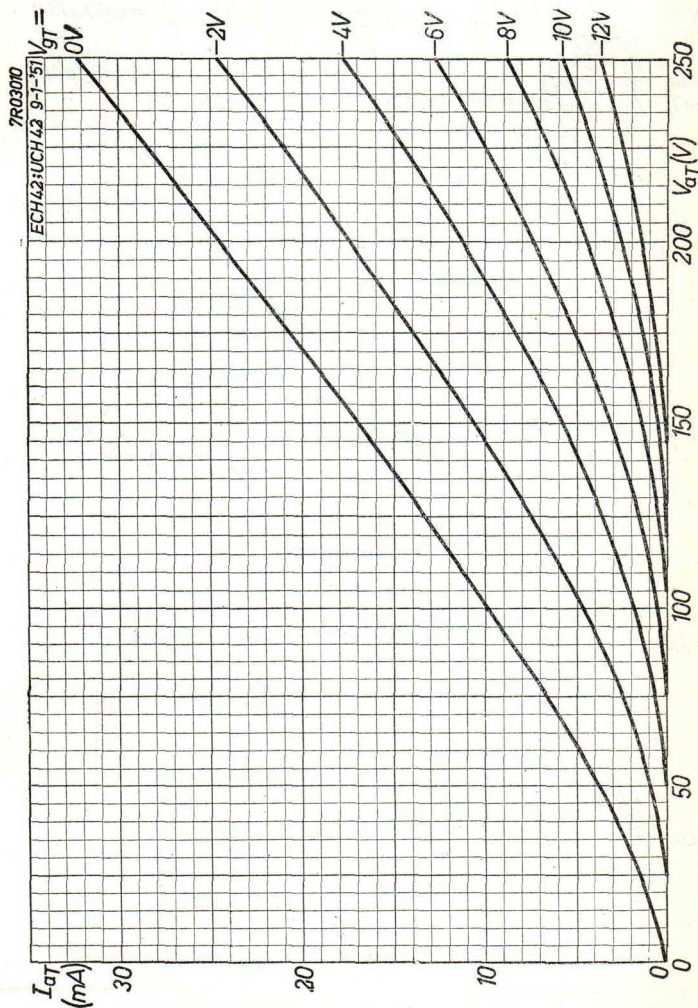


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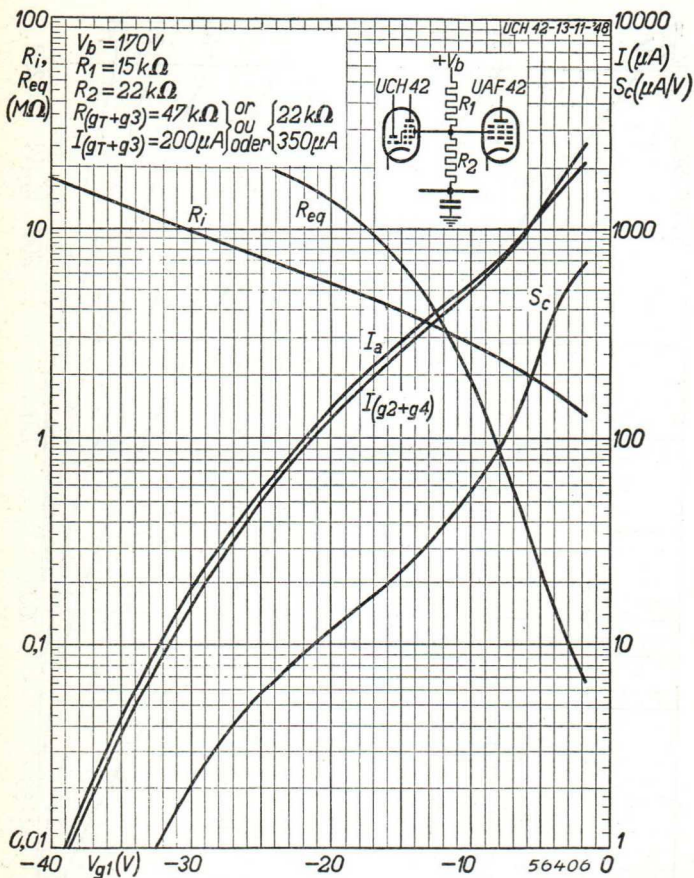


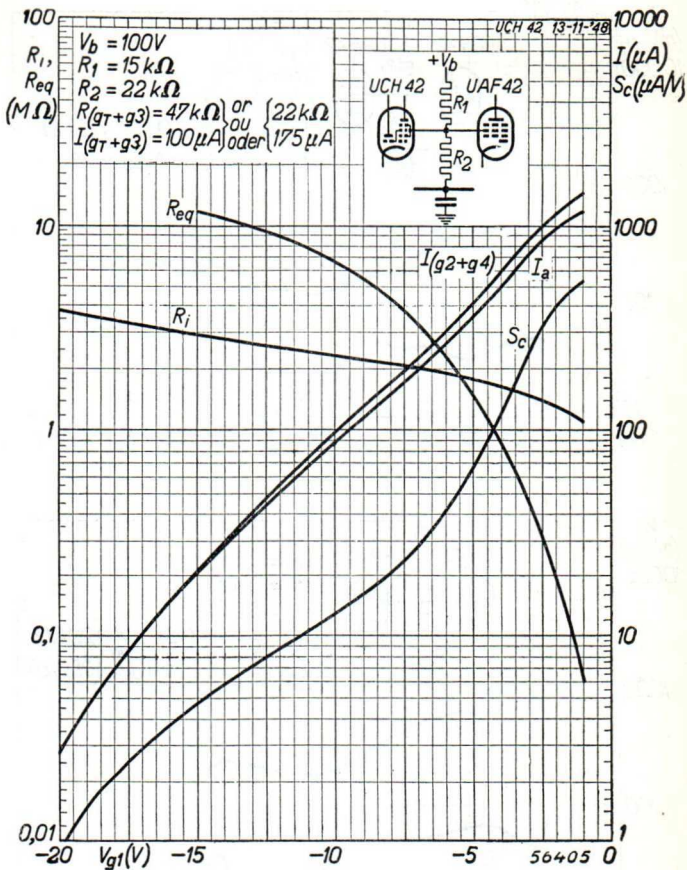
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