

Netzröhre für GW-Heizung
indirekt geheizt
Serienspeisung
DC-AC-Heating
Indirectly heated
connected in series

TELEFUNKEN

PCF 82

Triode - Pentode
für FS-Mischstufen
Triode - Pentode for
TV-Oscillator and Mixer

U_f ca. 9 V
 I_f 300 mA

Meßwerte · Measuring Values

Triode

U_a	150	V
U_g	-2	V
I_a	11	mA
S	5,8	mA/V
μ	35	

Pentode

U_a	170...200	V
U_{g2}	110	V
U_{g1} ($R_k = 68 \Omega$)	-0,9	V
I_a	10	mA
I_{g2}	3,3	mA
S	5,5	mA/V
μ_{g2g1}	32	
R_i	0,4	M Ω
U_{g1} ($I_a = 10 \mu A$)	-10	V

Betriebswerte · Typical Operation

Triode als Oszillator · Triode as Oscillator

U_b	170	200	250	V
R_a	20	20	20	k Ω
R_g	20	20	20	k Ω
U_{osz} eff	3	3	3	V _{eff}
I_a	3,3	4,1	5,7	mA
I_g	160	160	160	μA

Pentode als Mischstufe · Pentode as Mixer

$U_a = U_b$	170	200	250	V
R_{g2}	30	45	70	k Ω
R_{g1}	1	1	1	M Ω
U_{bg1}	0	0	0	V
U_{osz} eff	3	3	3	V _{eff}
I_a	5,1	5,1	5,6	mA
I_{g2}	2,1	2	1,9	mA
I_{g1}	3,75	3,8	3,7	μA
S_c	1,8	1,85	1,9	mA/V



Grenzwerte • Maximum Ratings

Triode

U_{ao}	550	V
U_a	300	V
N_a	1,5	W
I_k	20	mA
R_g	1	M Ω
U_{ge} ($I_g \leq +0,3 \mu A$)	-1,3	V
U_{fk} k = pos	220	V
k = neg	90	V
R_{fk}	20	k Ω

Pentode

U_{ao}	550	V
U_a	300	V
N_a	2	W
U_{g2o}	550	V
U_{g2}	300	V
N_{g2}	0,5	W
I_k	20	mA
R_{g1}	1	M Ω
U_{g1e} ($I_{g1} \leq +0,3 \mu A$)	-1,3	V
U_{fk} k = pos	220	V
k = neg	90	V
R_{fk}	20	k Ω

Kapazitäten • Capacitances

Triode

C_e	2,5	pF
$C_e^*)$	3,5	pF
C_a	0,4	pF
$C_a^*)$	1,6	pF
C_{ga}	1,8	pF
C_{kf}	ca. 3	pF

Pentode

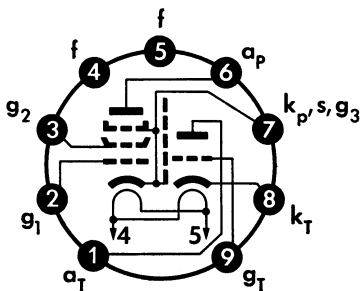
C_e	5,2	pF
C_a	2,6	pF
C_{g1a}	$\leq 0,01$	pF
C_{kf}	ca. 3	pF

Triode/Pentode

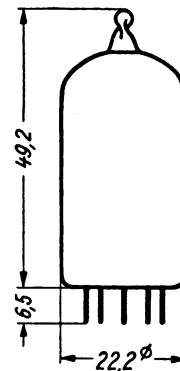
$C_{aT/aP}$	$\leq 0,07$	pF
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*) Stift 7 mit Stift 8 verbunden

Pin 7 connected to pin 8

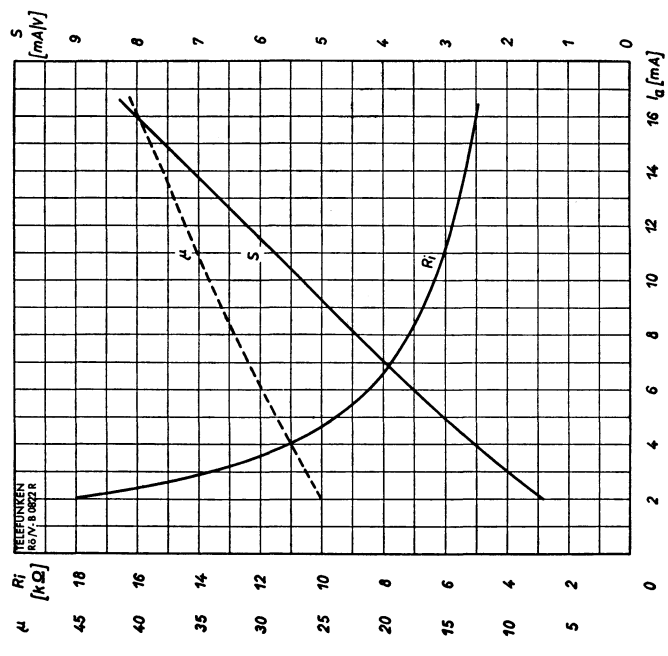
Sockelschaltbild
Base connection

Pico 9 • Noval

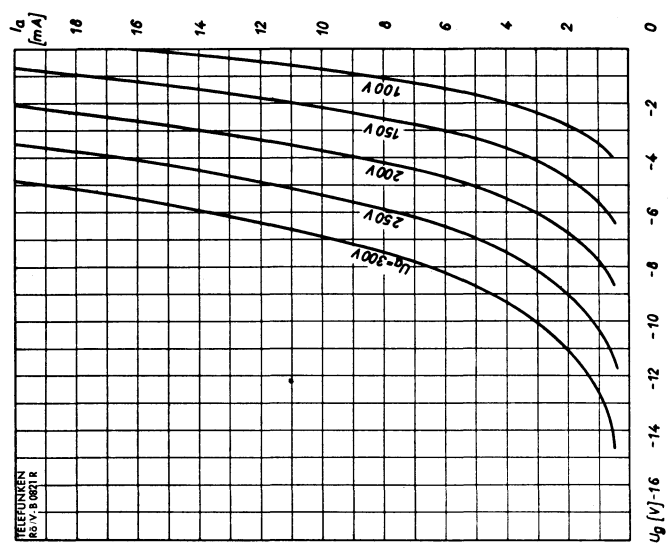
max. Abmessungen
max. Dimensions
DIN 41539, Nenngröße 40, Form AGewicht • Weight
max. 16 g

Wenn notwendig, muß gegen Herausfallen der Röhre aus der Fassung Vorsorge getroffen werden.
Special precaution must be taken to prevent the tube from becoming dislodged.



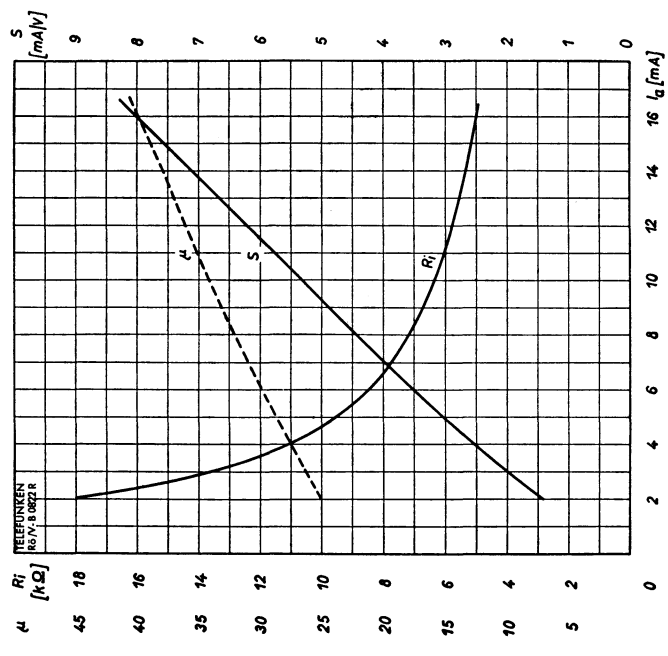


$I_a = f(U_g)$
 $U_a = \text{Parameter}$



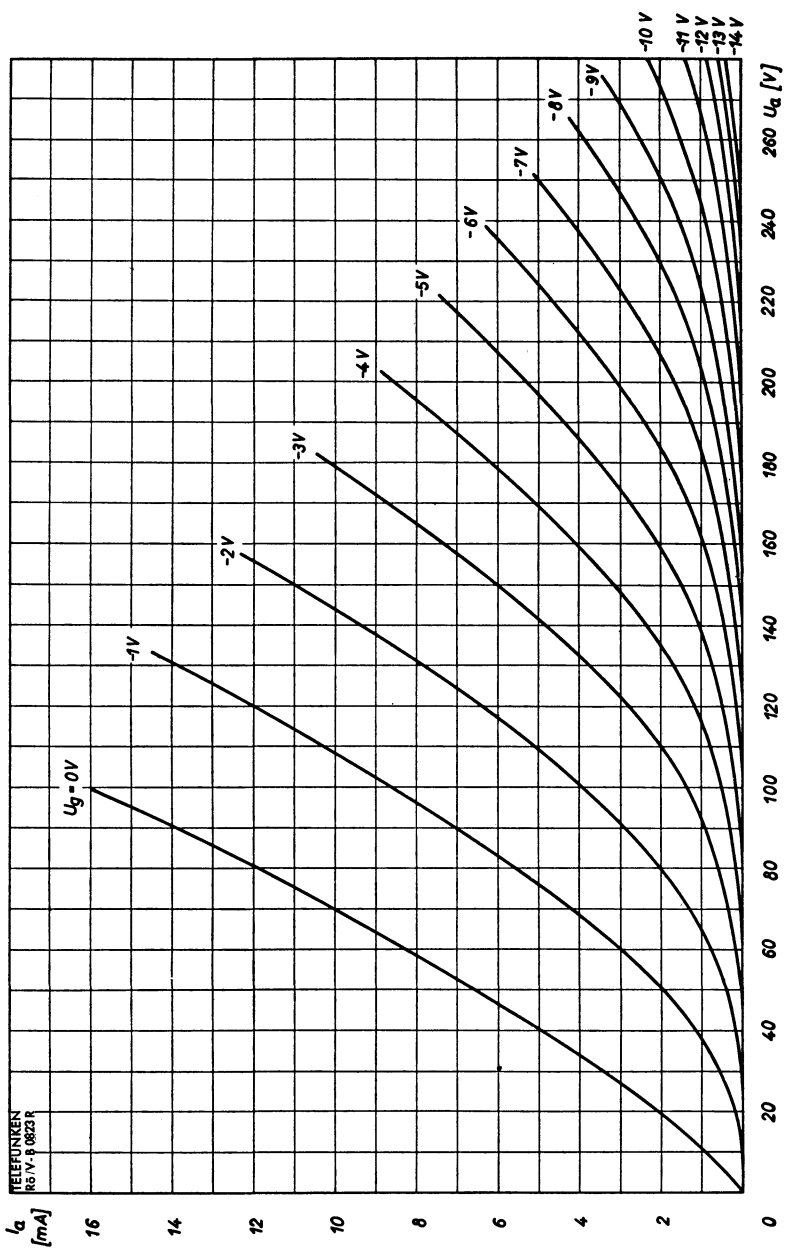
Triode

$S, R_i, \mu = f(I_a)$
 $U_a = 150 \text{ V}$



$S, R_i, \mu = f(I_a)$
 $U_a = 150 \text{ V}$

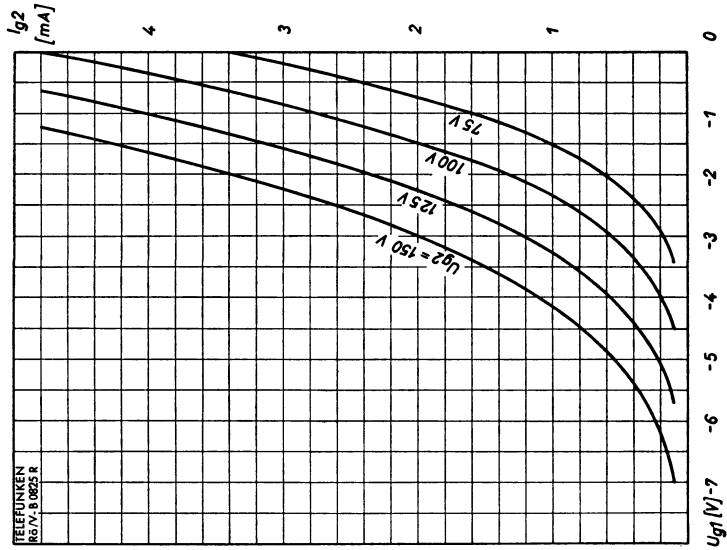




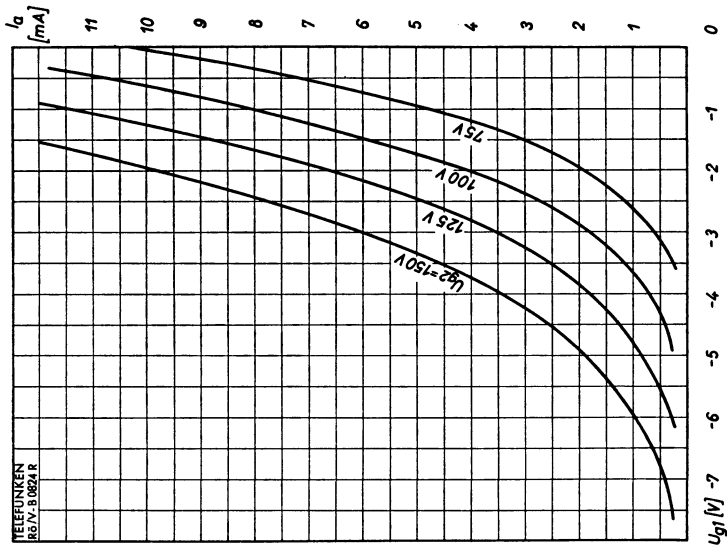
Triode
 $I_a = f(U_a)$
 $U_g = \text{Parameter}$

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R5 IV - 8 0823 R



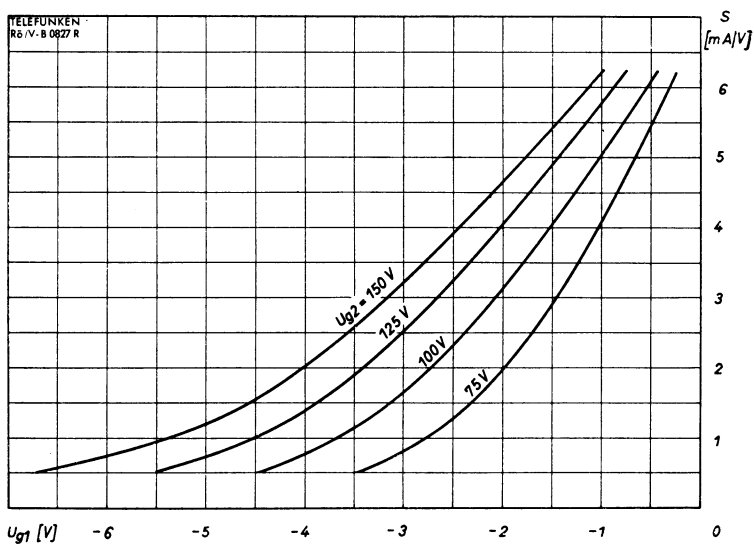
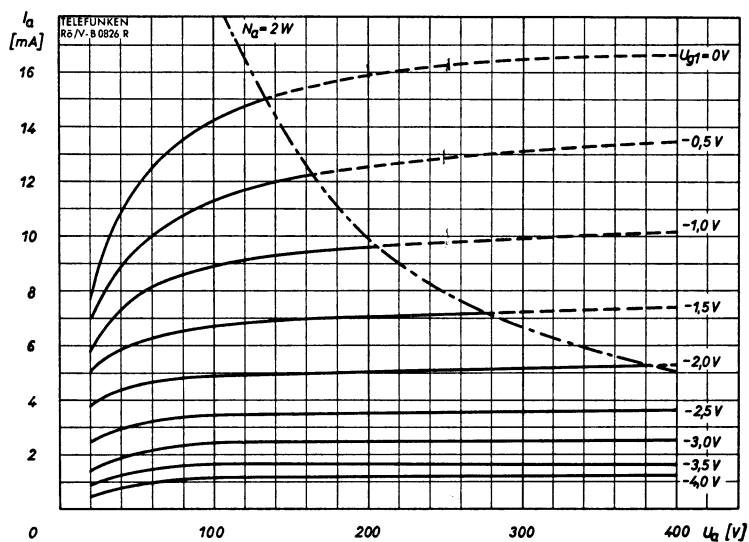


$I_{g2} = f(U_{g1})$
 $U_a = 170\text{ V}$
 $U_{g2} = \text{Parameter}$



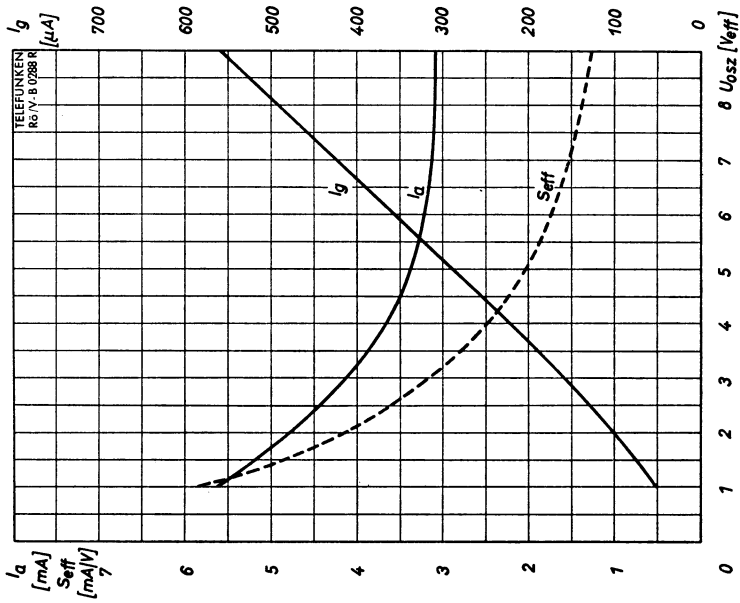
$I_a = f(U_{g1})$
 $U_a = 170\text{ V}$
 $U_{g2} = \text{Parameter}$

Pentode



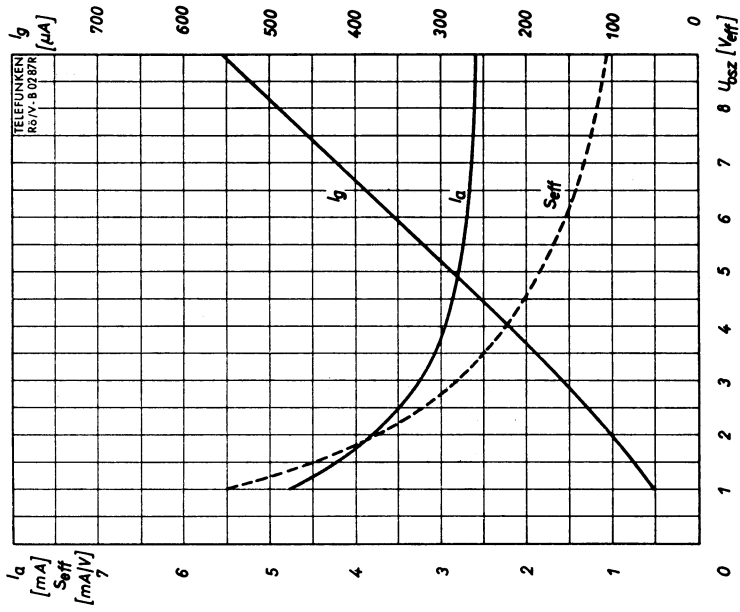
Pentode





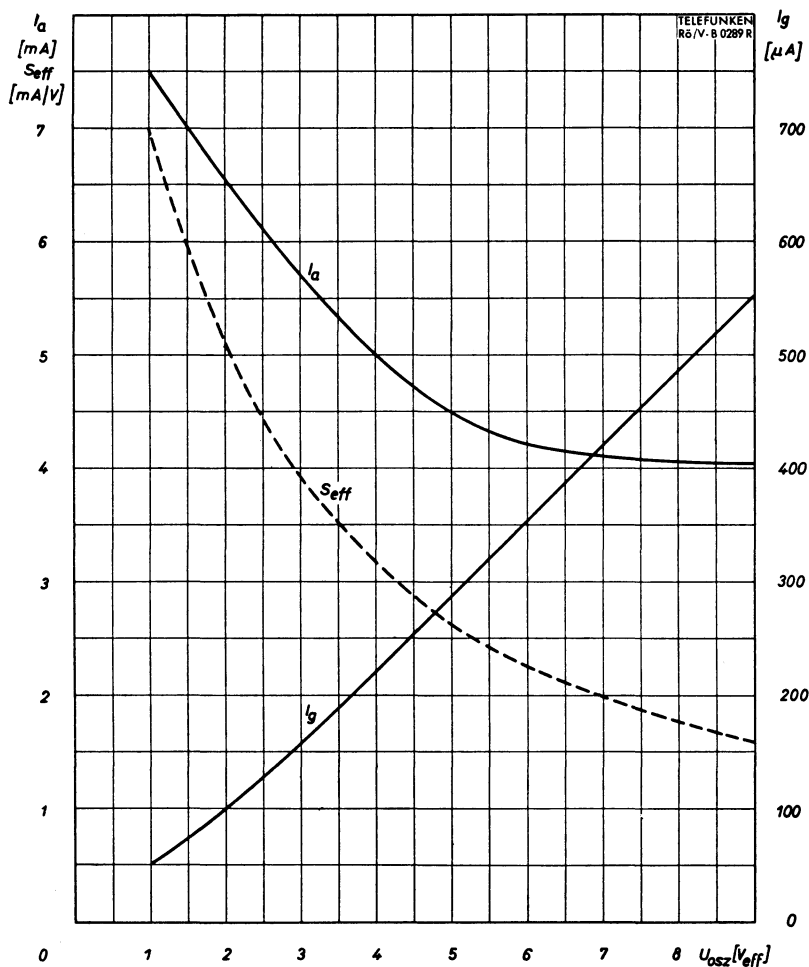
$I_a, I_g, S_{eff} = f(U_{os})$
 $U_b = 200$ V
 $R_a = 20$ k Ω
 $R_g = 20$ k Ω

Triode als Oszillator



$I_a, I_g, S_{eff} = f(U_{os})$
 $U_b = 170$ V
 $R_a = 20$ k Ω
 $R_g = 20$ k Ω





Triode als Oszillator

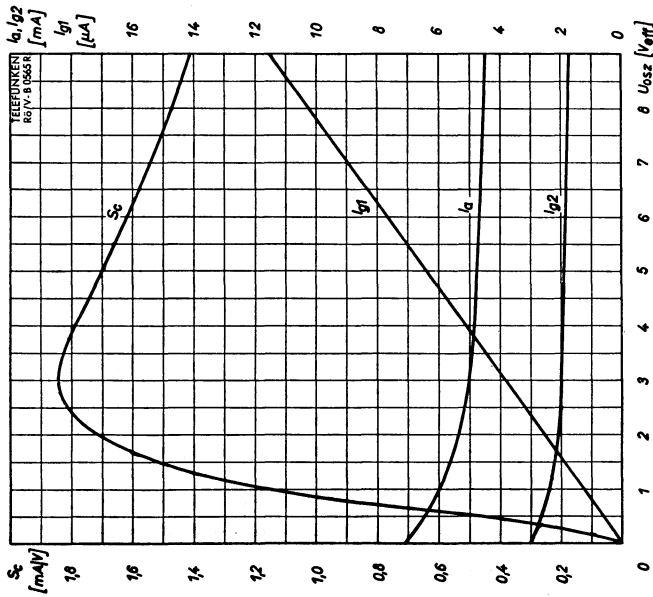
$$I_a, I_g, S_{eff} = f(U_{osz})$$

$$U_b = 250 \text{ V}$$

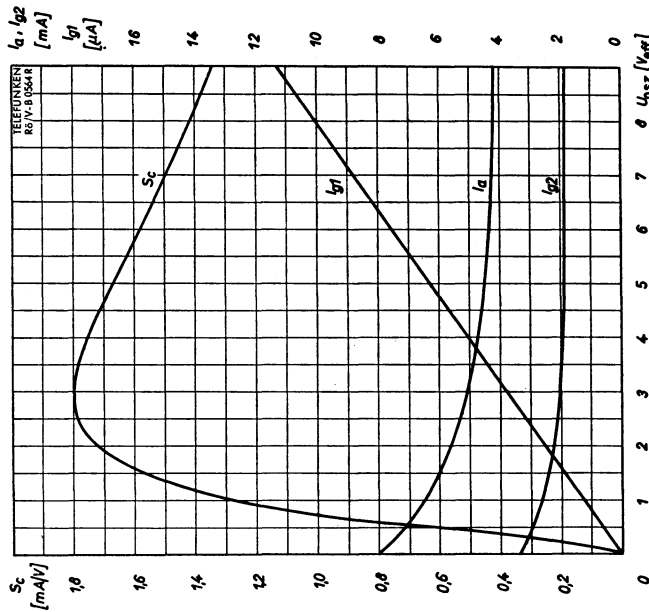
$$R_a = 20 \text{ k}\Omega$$

$$R_g = 20 \text{ k}\Omega$$





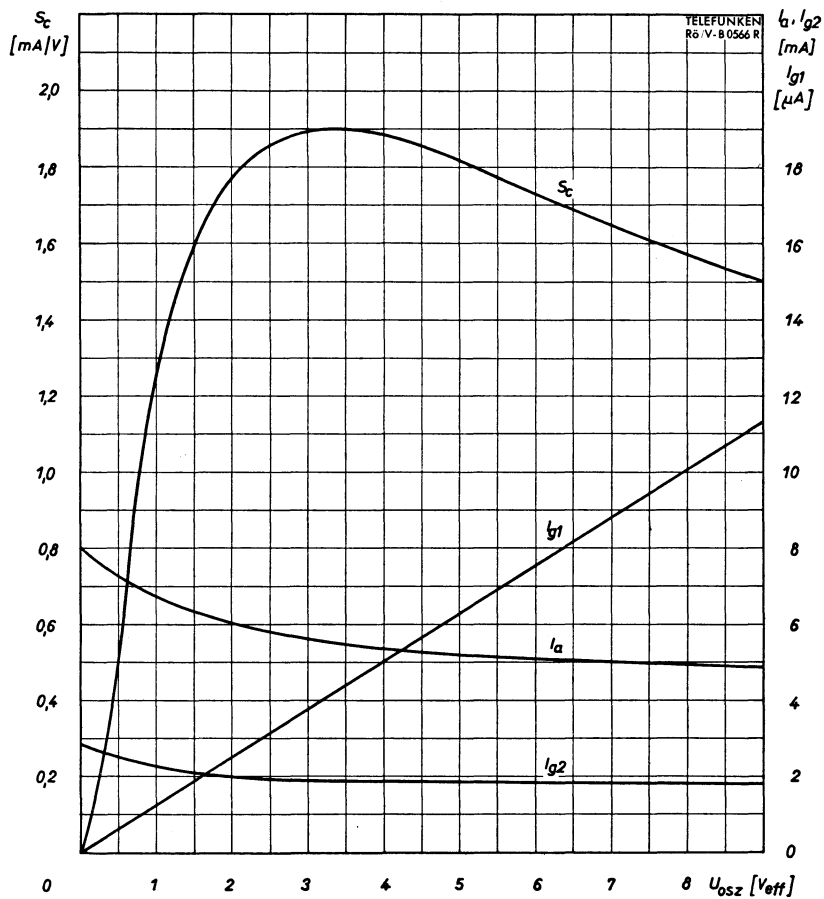
$I_a, I_{g2}, I_{g1}, S_c = f(U_{os})$
 $U_b = U_a = 200 \text{ V}$
 $R_{g2} = 45 \text{ k}\Omega$
 $R_{g1} = 1 \text{ M}\Omega$



$I_a, I_{g2}, I_{g1}, S_c = f(U_{os})$
 $U_b = U_a = 170 \text{ V}$
 $R_{g2} = 30 \text{ k}\Omega$
 $R_{g1} = 1 \text{ M}\Omega$

Pentode als Mischröhre





Pentode als Mischröhre

$$I_a, I_{g2}, I_{g1}, S_c = f(U_{osz})$$

$$U_b = U_a = 250 \text{ V}$$

$$R_{g2} = 70 \text{ k}\Omega$$

$$R_{g1} = 1 \text{ M}\Omega$$

