

Netzröhre für GW-Heizung
indirekt geheizt
Serienspeisung

DC-AC-heating
indirectly heated
connected in series

TELEFUNKEN

PCF 801

PCF 803

Regelbare Pentode-Triode für FS-Mischstufen

Remote cutoff pentode-triode for TV-oscillator and mixer

I_f **300** mA
 U_f ca. **8,5** V

Meßwerte · Measuring values

Triode

U_a **100** V
 U_g **-3** V
 I_a **15** mA
 S **9** mA/V
 μ **20**

Pentode

U_a **170** V
 U_{g2} **120** V
 U_{g1} **-1,4** V
 I_a **10** mA
 I_{g2} **3** mA
 S **11** mA/V
 R_i **> 350** k Ω
 μ_{g2g1} ca. **55**
 r_{aeq} **1,5** k Ω
 r_{el} (50 MHz) **10** k Ω

Betriebswerte · Typical operation

Triode als Oszillator · Triode as oscillator

U_{ba}	200	200	V
R_a	8,2	12	k Ω
R_g	10	10	k Ω
I_a	16	12	mA
$U_{osz\ eff}$	4,5	3,3	V
$S_{eff}^1)$	3,7	3,7	mA/V

Pentode als Mischstufe

Pentode as mixer

U_b	200	200	V
R_a	2,7	4,7	k Ω
R_{g2}	27	27	k Ω
R_{g1}	0,1	1	M Ω
U_{bg1}	-1,4	0	V
I_a	10	9,3	mA
I_{g2}	3	2,9	mA
$U_{osz\ eff}$	1,6	1,6	V
S_c	5	4,7	mA/V
I_{g1}	ca. 8	2,3	μ A

Pentode als ZF-Verstärker

Pentode as IF-amplifier

U_b	200	200	V
R_a	2,7	4,7	k Ω
R_{g2}	27	27	k Ω
R_{g1}	0,1	1	M Ω
U_{bg1}	-1,4	0	V
I_a	10	13	mA
I_{g2}	3	3,9	mA
S	11	14,5	mA/V
$S_{(-12V)}/S_{(-1,4V)}$ ca. 1 : 100			

¹⁾ bezogen auf die Grundwelle · referred to fundamental wave.



Grenzwerte · Maximum ratings

Triode

U_{ao}	550	V
U_{ba}	250	V
U_a	125	V
N_a	1,5	W
I_k	20	mA
$R_g^{1)}$	500	k Ω
$U_{ge} (I_g \leq +0,3 \mu A)$	-1,3	V
U_g	-50	V
$U_{f/k^2)}$	100	V

Pentode

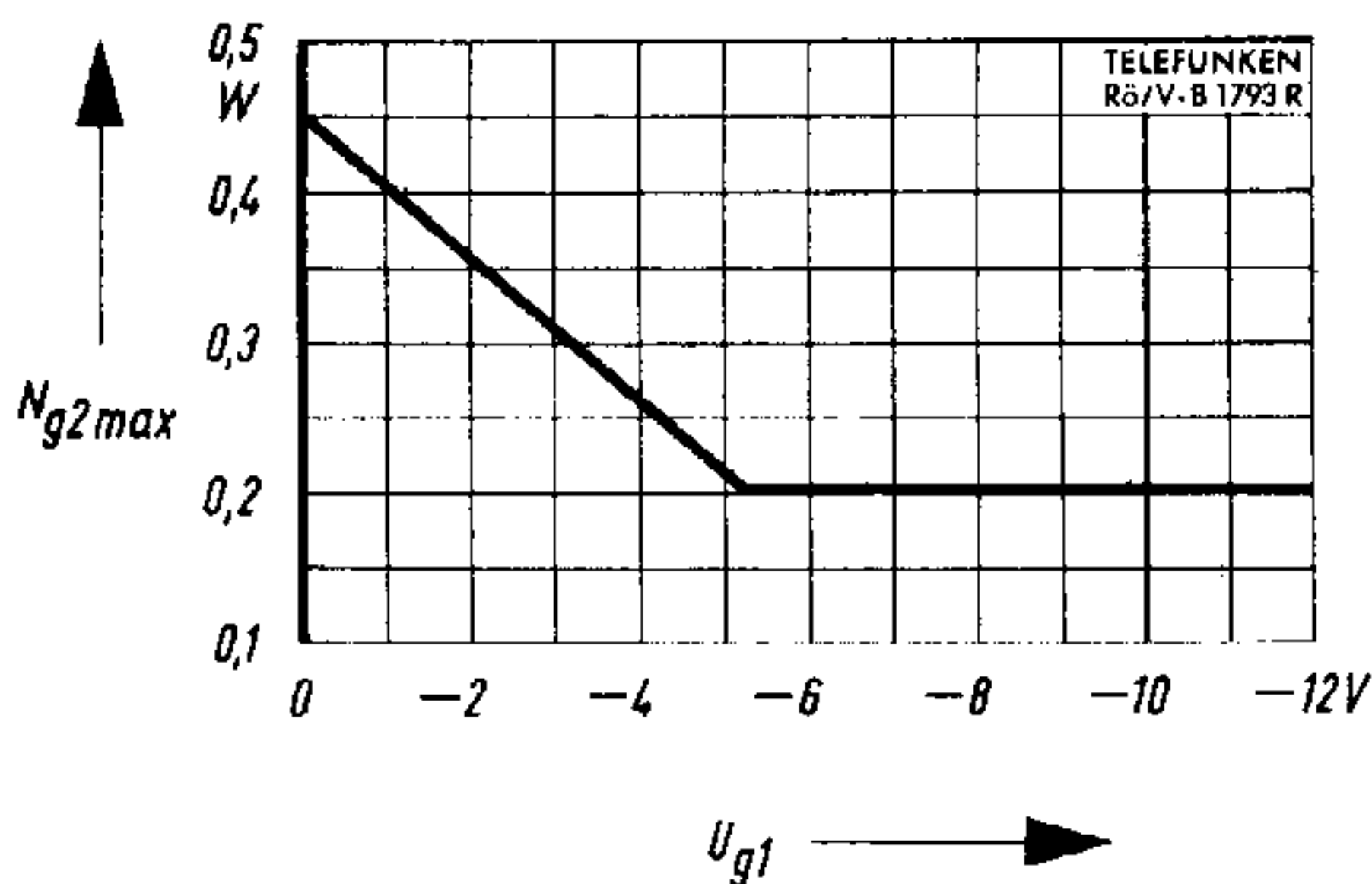
U_{ao}	550	V
U_a	250	V
N_a	2	W
U_{g2o}	550	V
U_{bg2}	250	V
U_{g2}	250	V
$N_{g2} (U_{g1} = 0 V)$	0,45	W
I_k	18	mA
$R_{g1}^{1)}$	1	M Ω
$R_{g1}^{3)}$	2,2	M Ω
U_{g1}	-50	V
$U_{f/k^2)}$	100	V

1) U_g, U_{g1} fest · fixed grid bias

2) Um den Anforderungen für AM-Ton zu erfüllen, soll $U_{f/k_{eff}}$ kleiner als 50 V sein.

$U_{f/k}$ r.m.s. should be lower than 50 V to satisfy requirements for AM sound.

3) U_g, U_{g1} autom. · cathode grid bias



$$N_{g2max} = f(U_{g1})$$

Kapazitäten · Capacitances

mit äußerer Abschirmung an Kathode
with external screening to cathode

Triode

C_e	3,3	pF
C_a	1,7	pF
$C_{g/a}$	1,8	pF

Pentode

C_e	6,2	pF
C_a	3,7	pF
$C_{g1/a}$	9 (< 12)	pF
$C_{g1/g2}$	1,6	pF

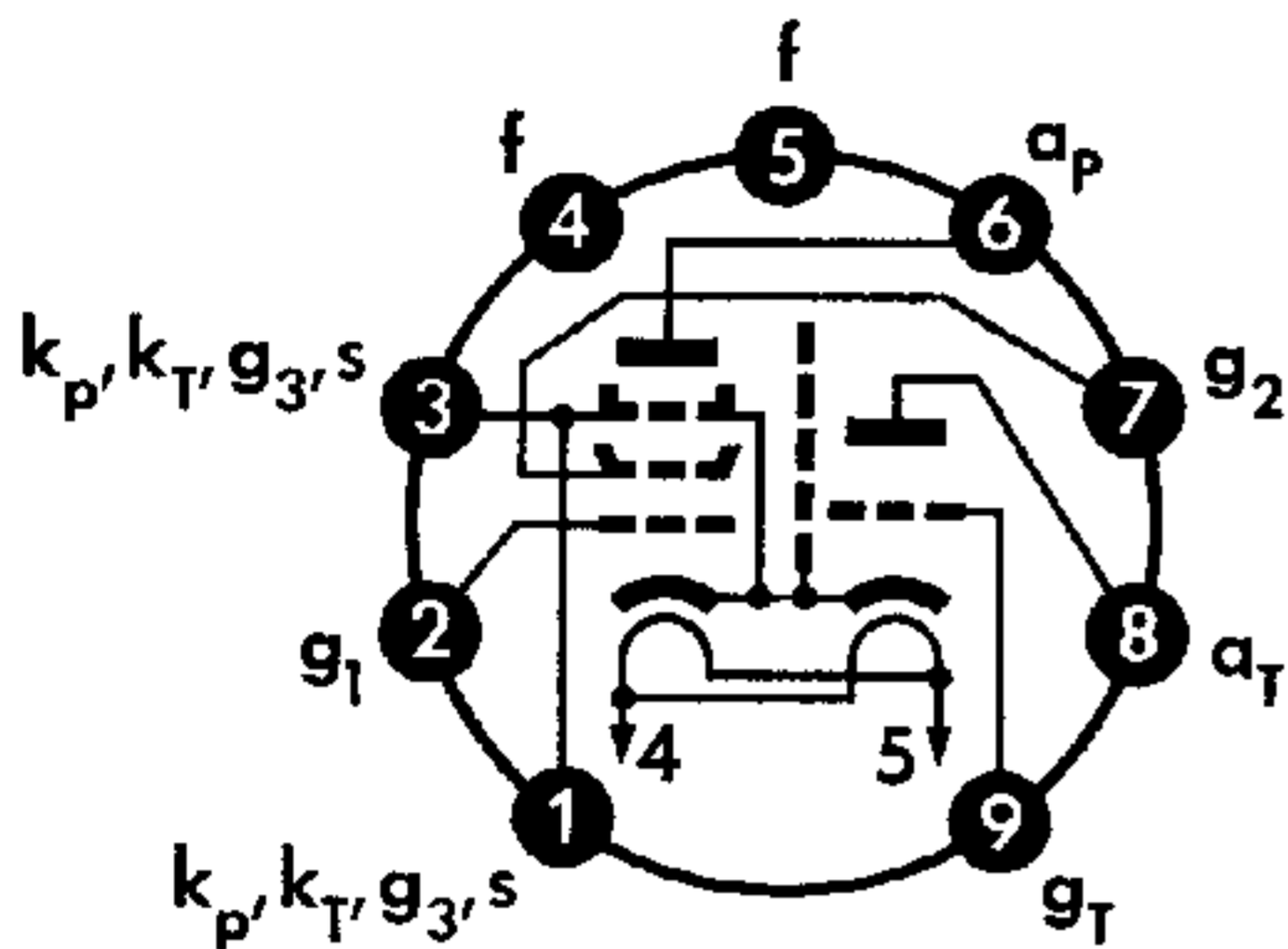
$C_{aP/aT}$	< 0,025	pF
$C_{aP/gT}$	< 0,010	pF
$C_{g1P/aT}$	< 0,010	pF
$C_{g1P/gT}$	< 0,010	pF



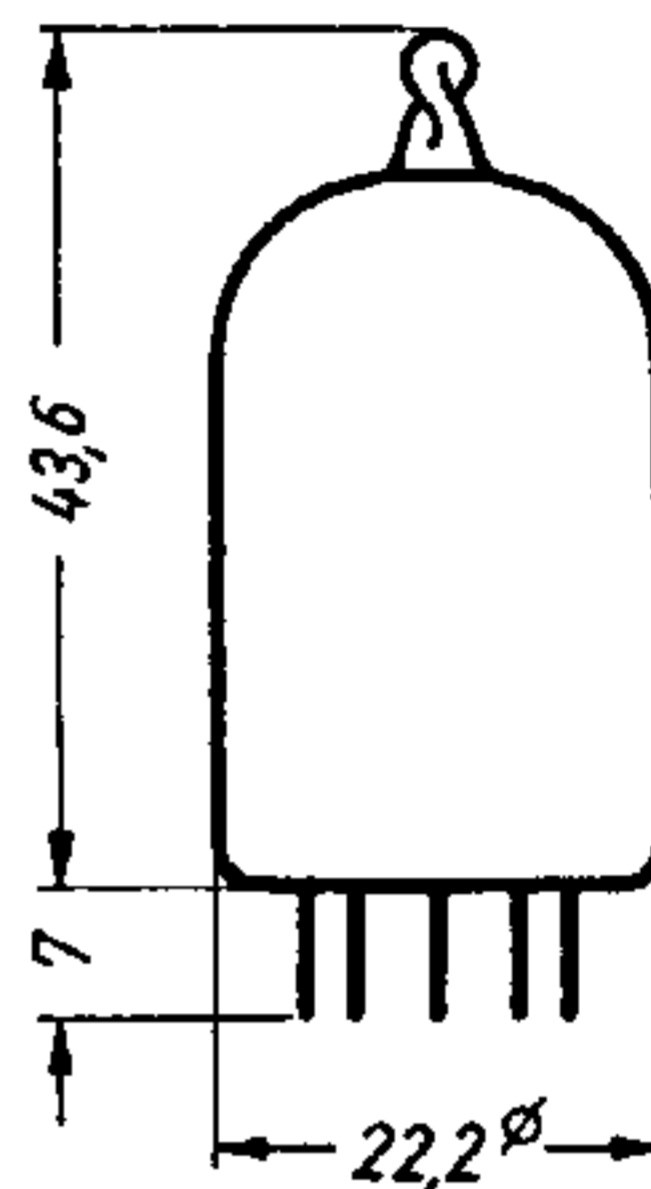
Sockelschaltbild
Base connection

max. Abmessungen
max. dimensions
DIN 41 539, Nenngröße 34, Form A

PCF 801

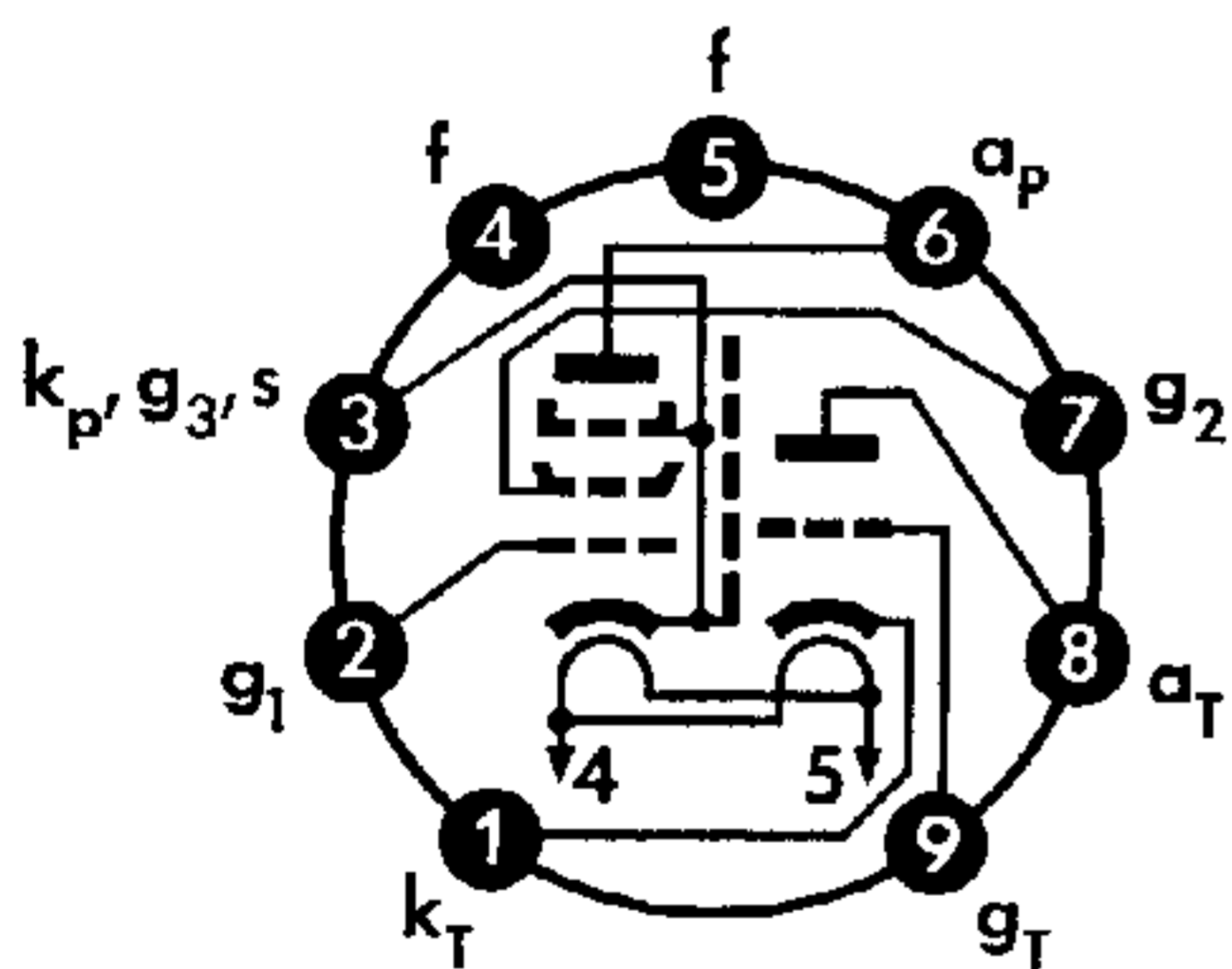


Pico 9 · Noval



PCF 803

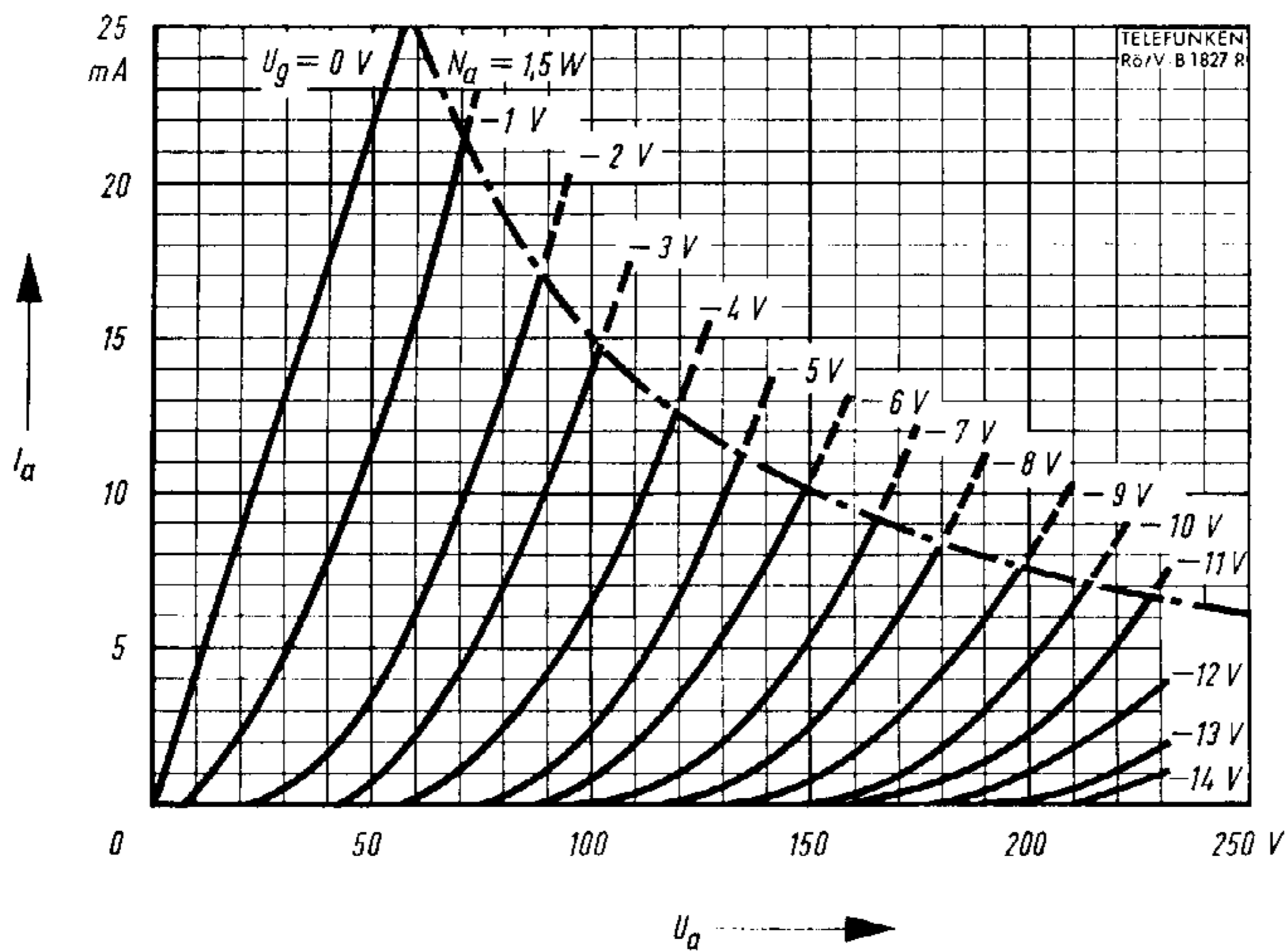
Gewicht · Weight
max. 12 g



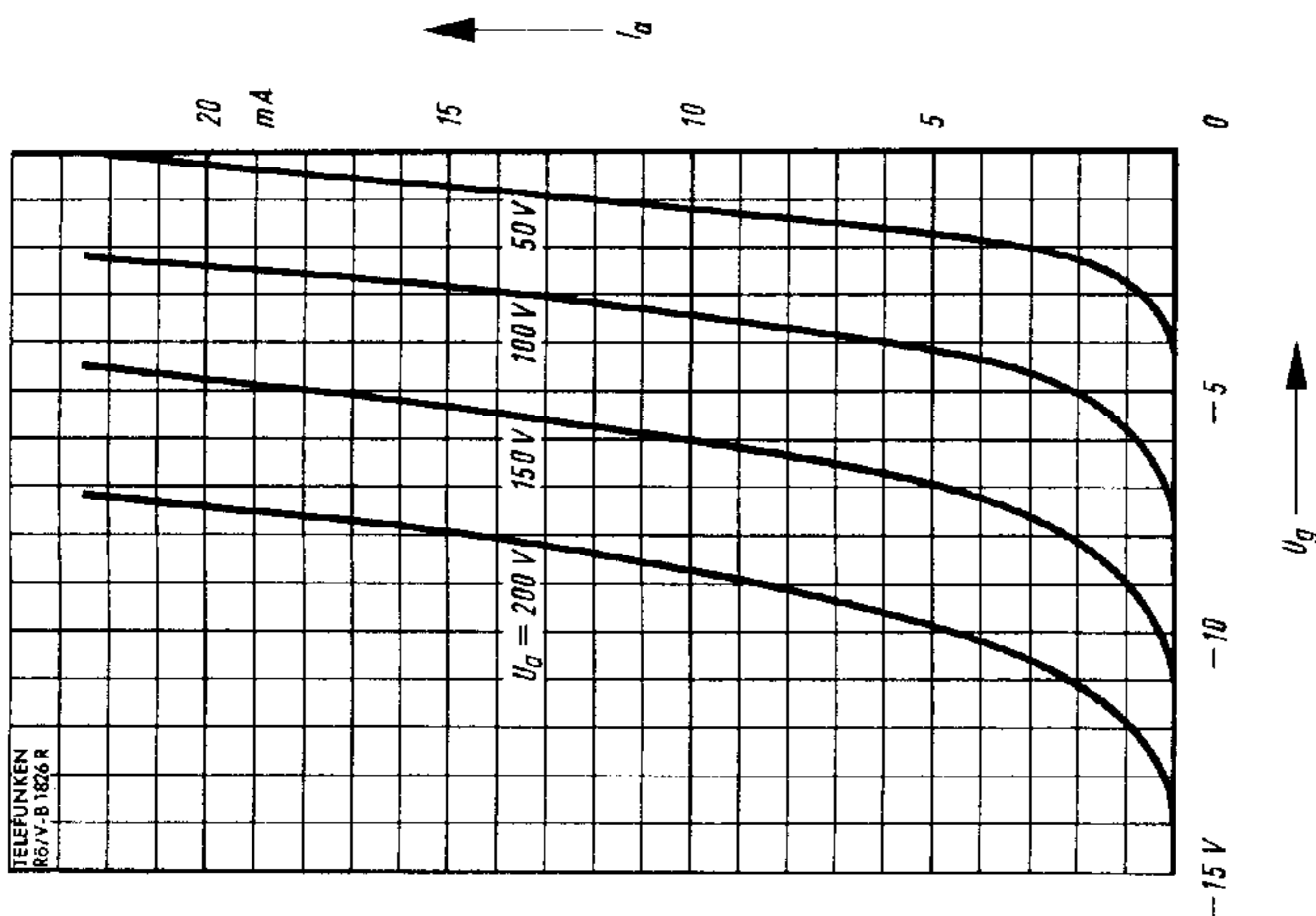
Pico 9 · Noval

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





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



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

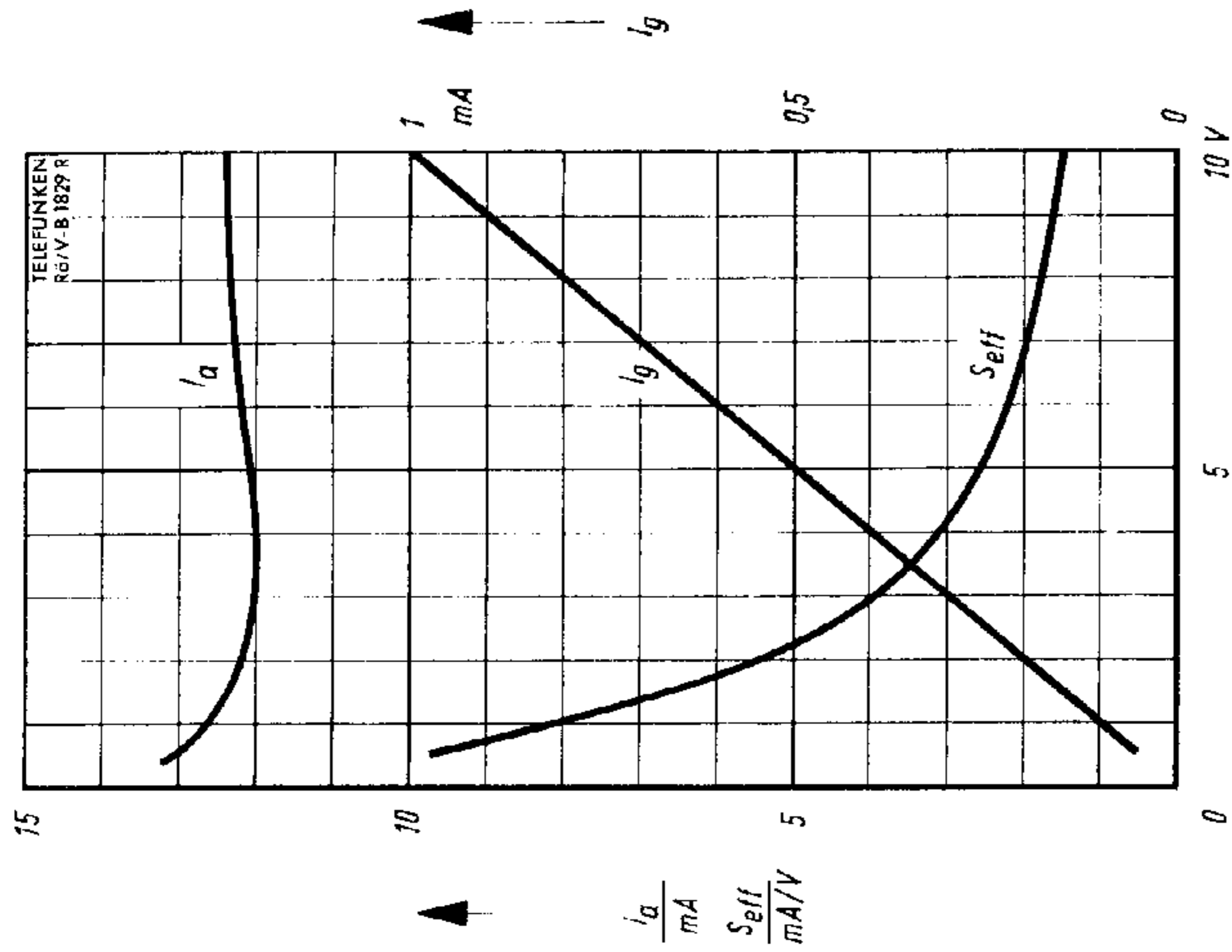
Triode



PCF 801

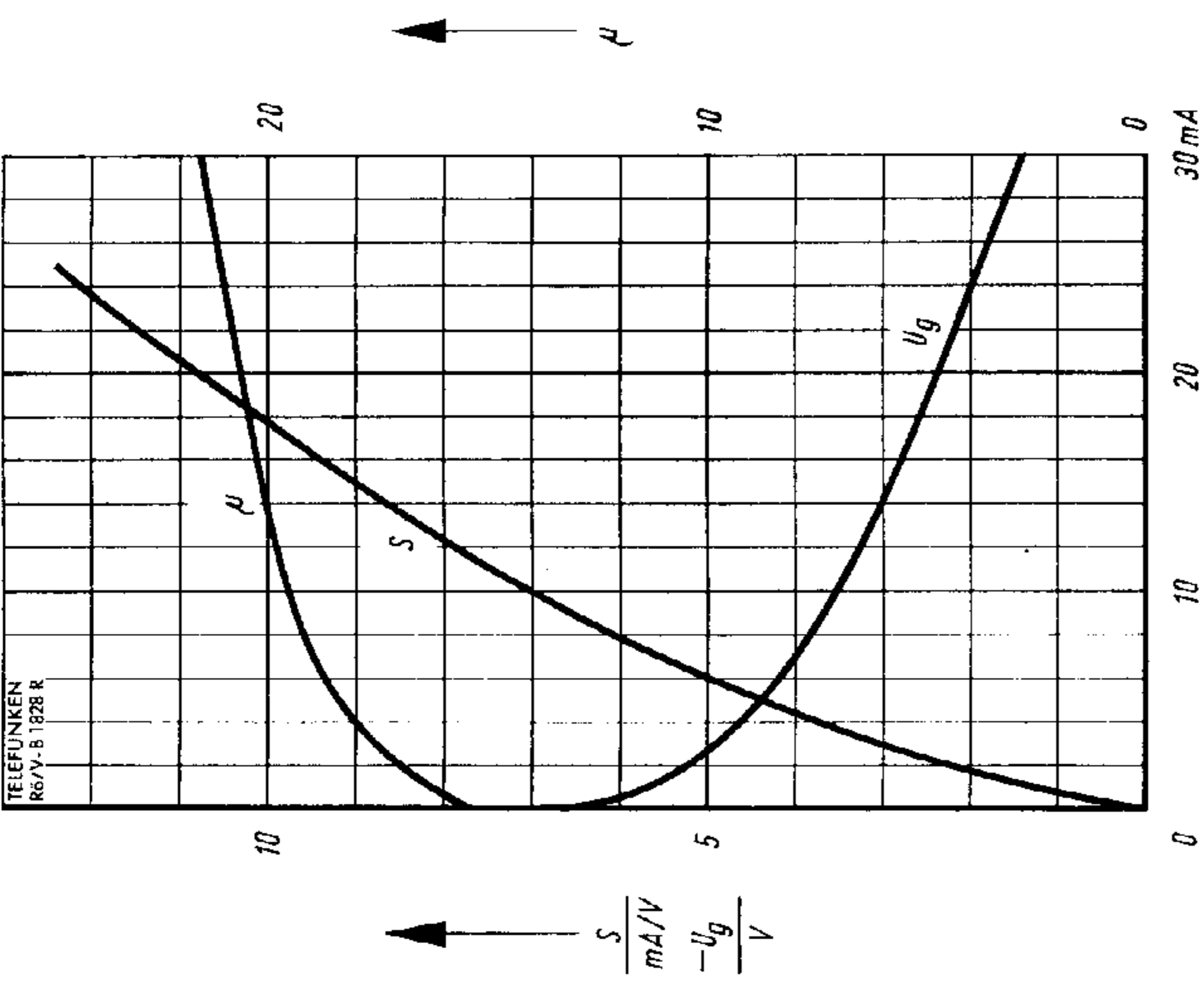
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TELEFUNKEN



Triode als Oszillator

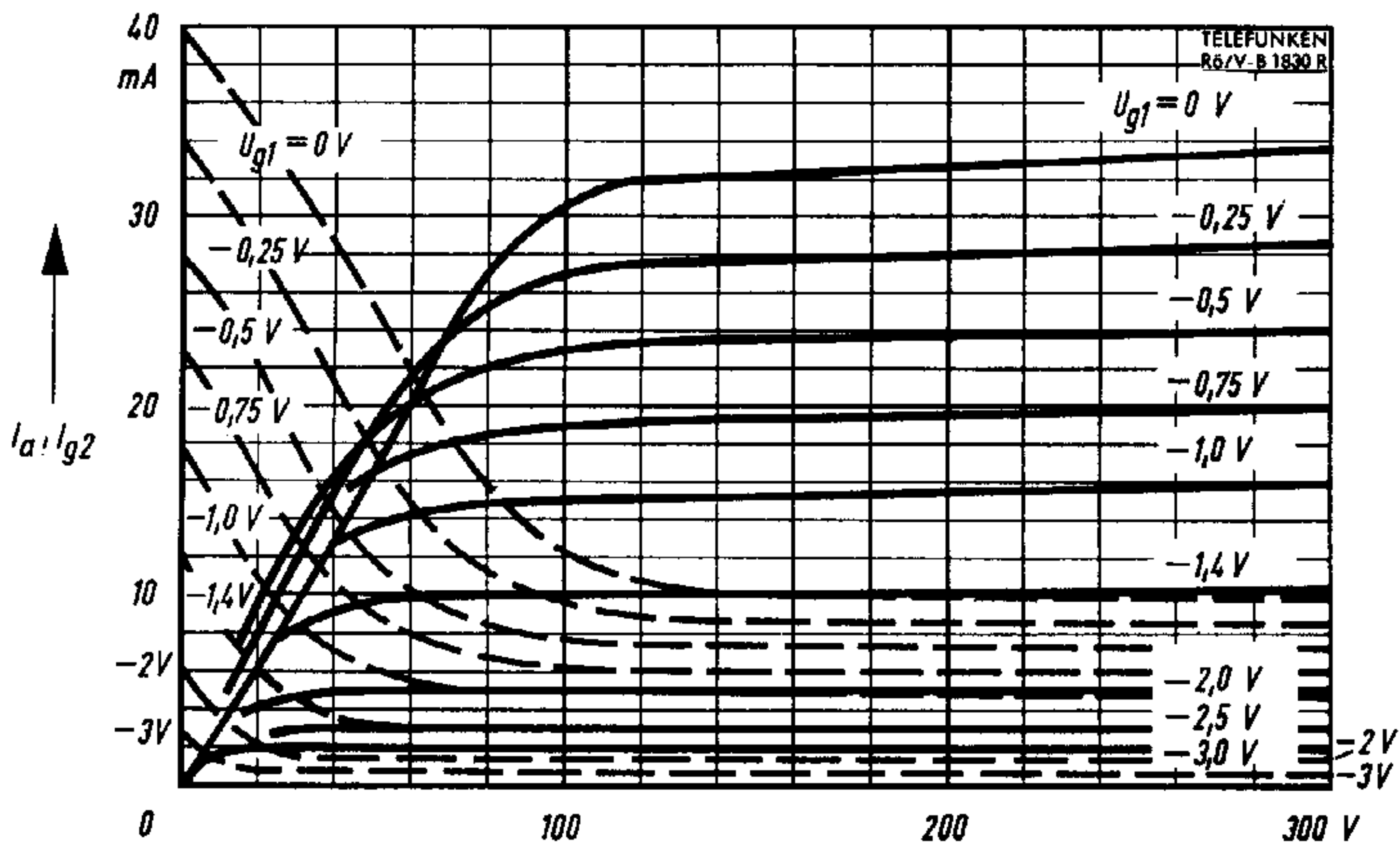
- $I_a, S_{eff}, I_g = f(U_{oszeff})$
- $U_b = 200 \text{ V}$
- $R_a = 12 \text{ k}\Omega$
- $R_g = 10 \text{ k}\Omega$



$S, -U_g, \mu = f(I_a)$

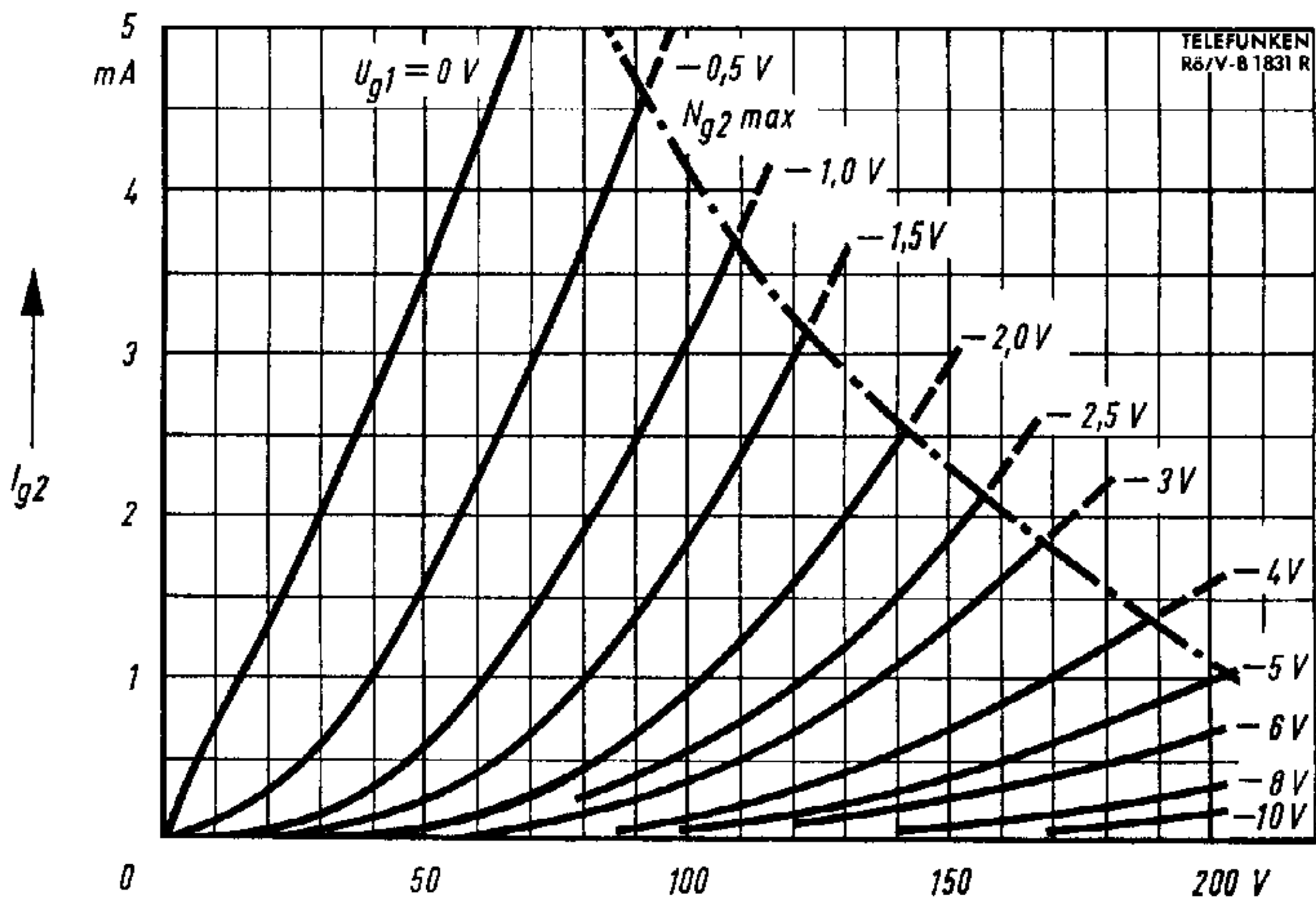
$U_a = 100 \text{ V}$





TELEFUNKEN
R6/V-B 1830 R

$I_a, I_{g2} = f(U_a)$
 $U_{g2} = 120\text{ V}$
 $U_{g1} = \text{Parameter}$



TELEFUNKEN
R6/V-B 1831 R

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

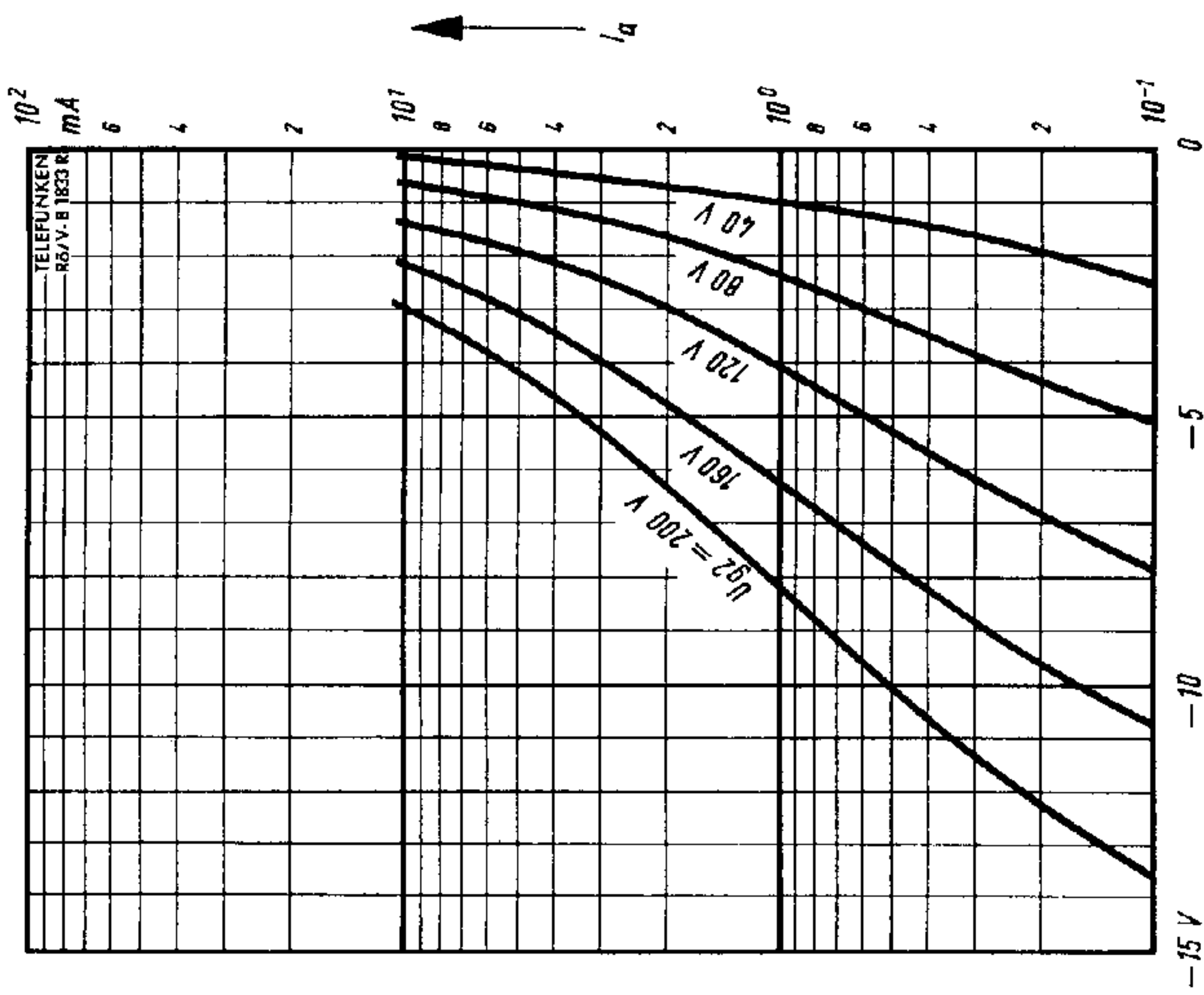
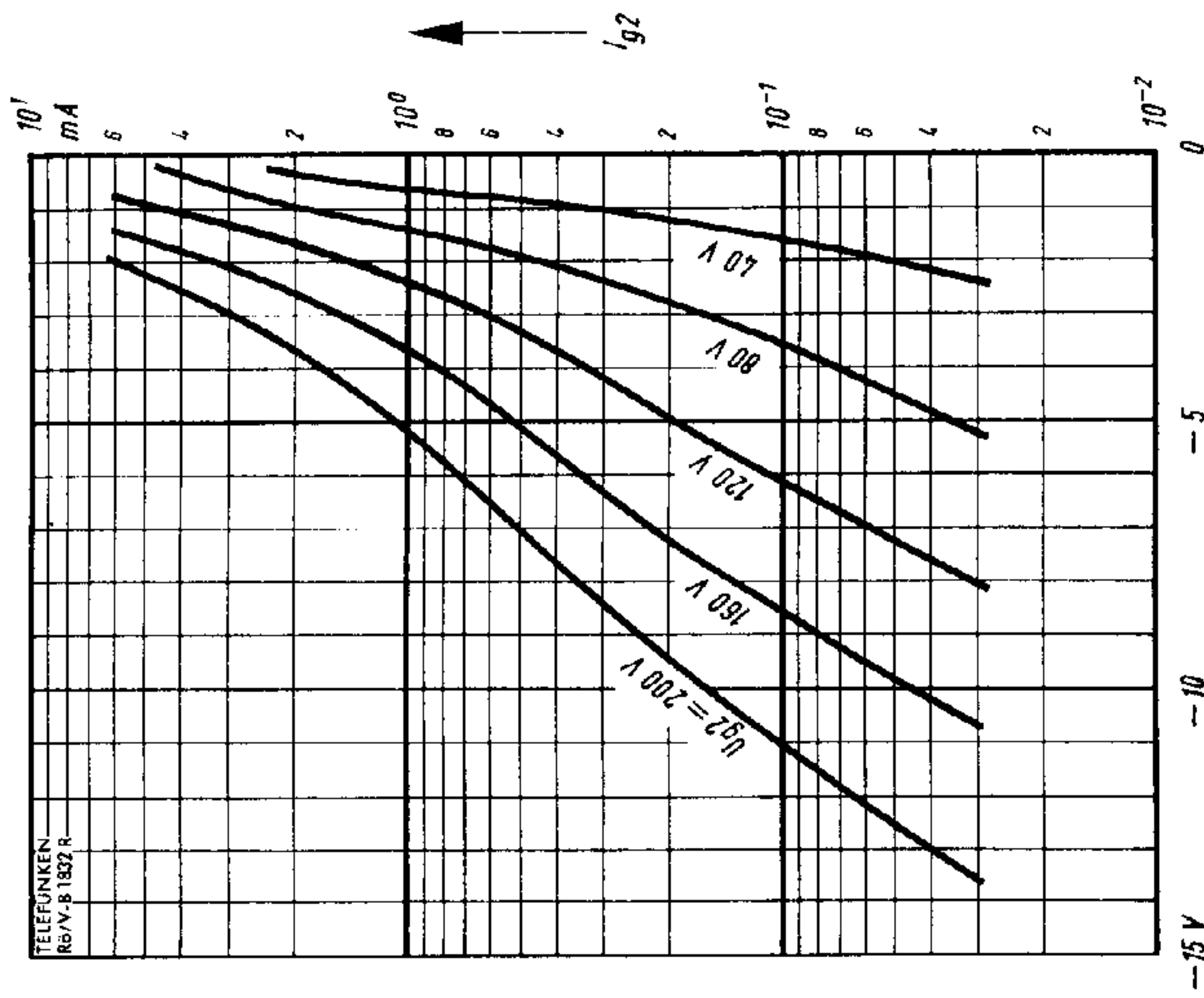
Pentode



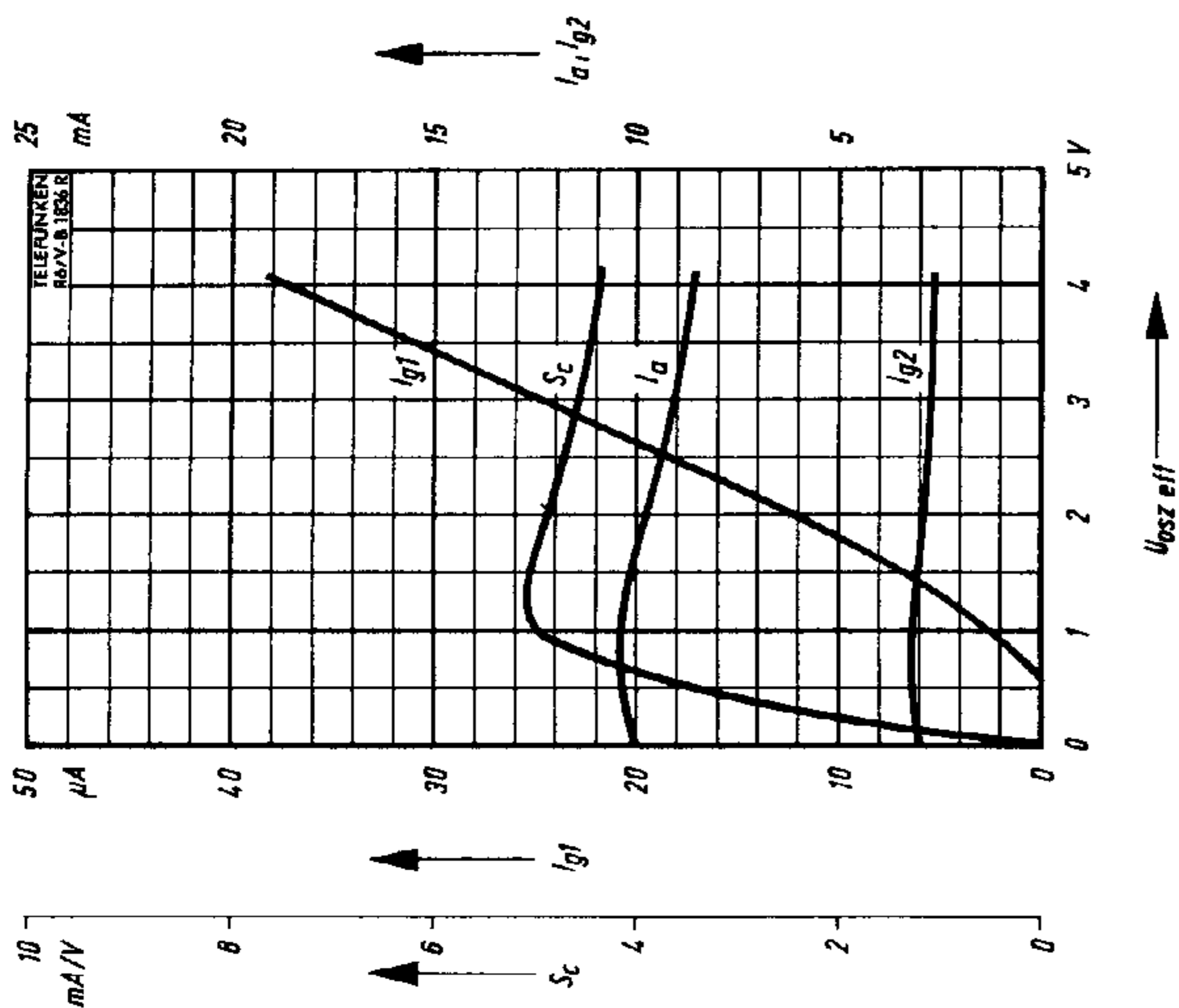
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TELEFUNKEN

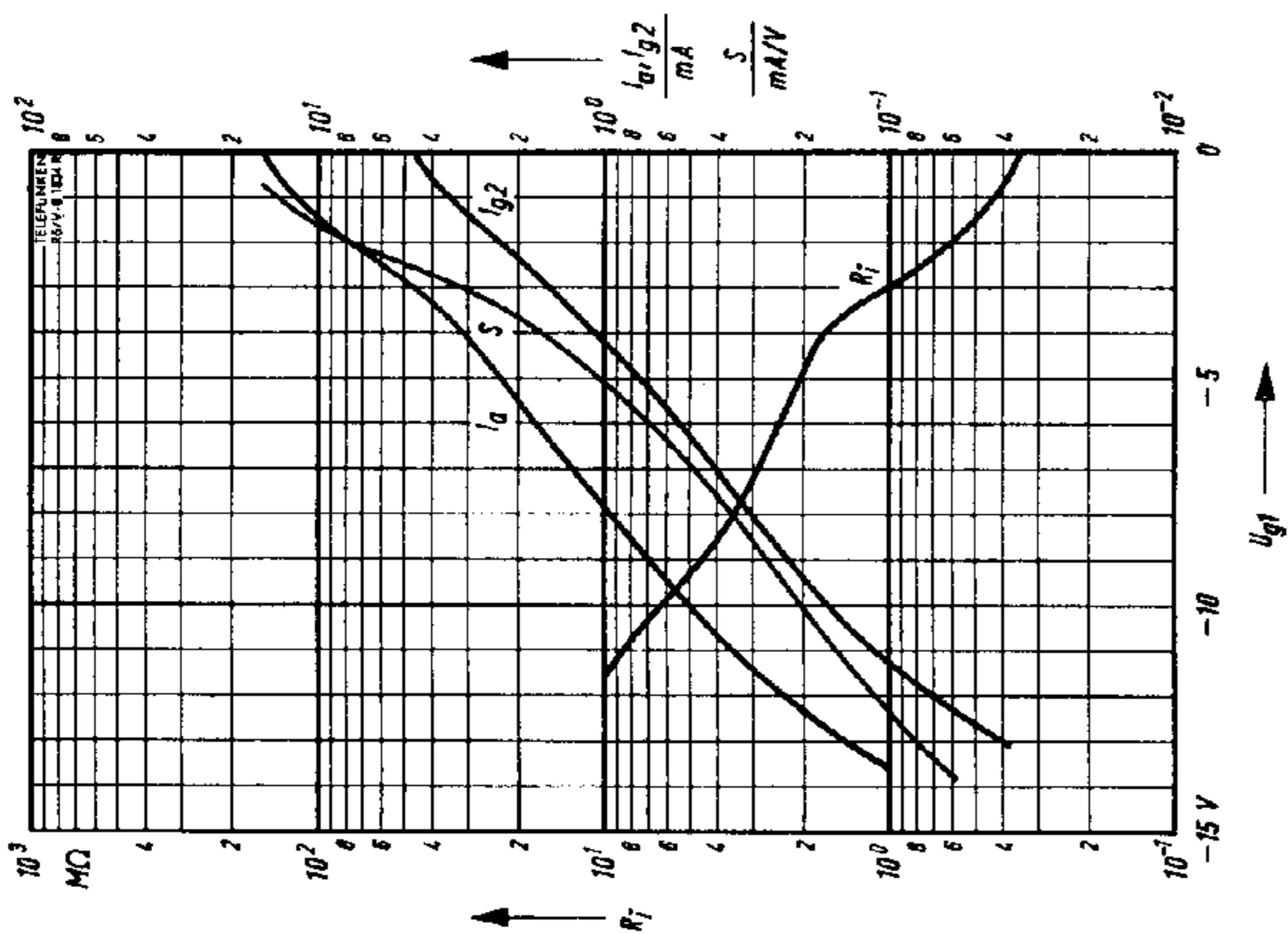


Pentode



Pentode als ZF-Verstärker
Pentode als IF-Amplifier

$I_a, I_{g2}, S, R_i = f(U_{g1})$
 $U_b = 200 \text{ V}$
 $R_a = 2,7 \text{ k}\Omega$
 $R_{g2} = 27 \text{ k}\Omega$
 $R_{g1} = 100 \text{ k}\Omega$



Pentode als Mischstufe
Pentode als mixer

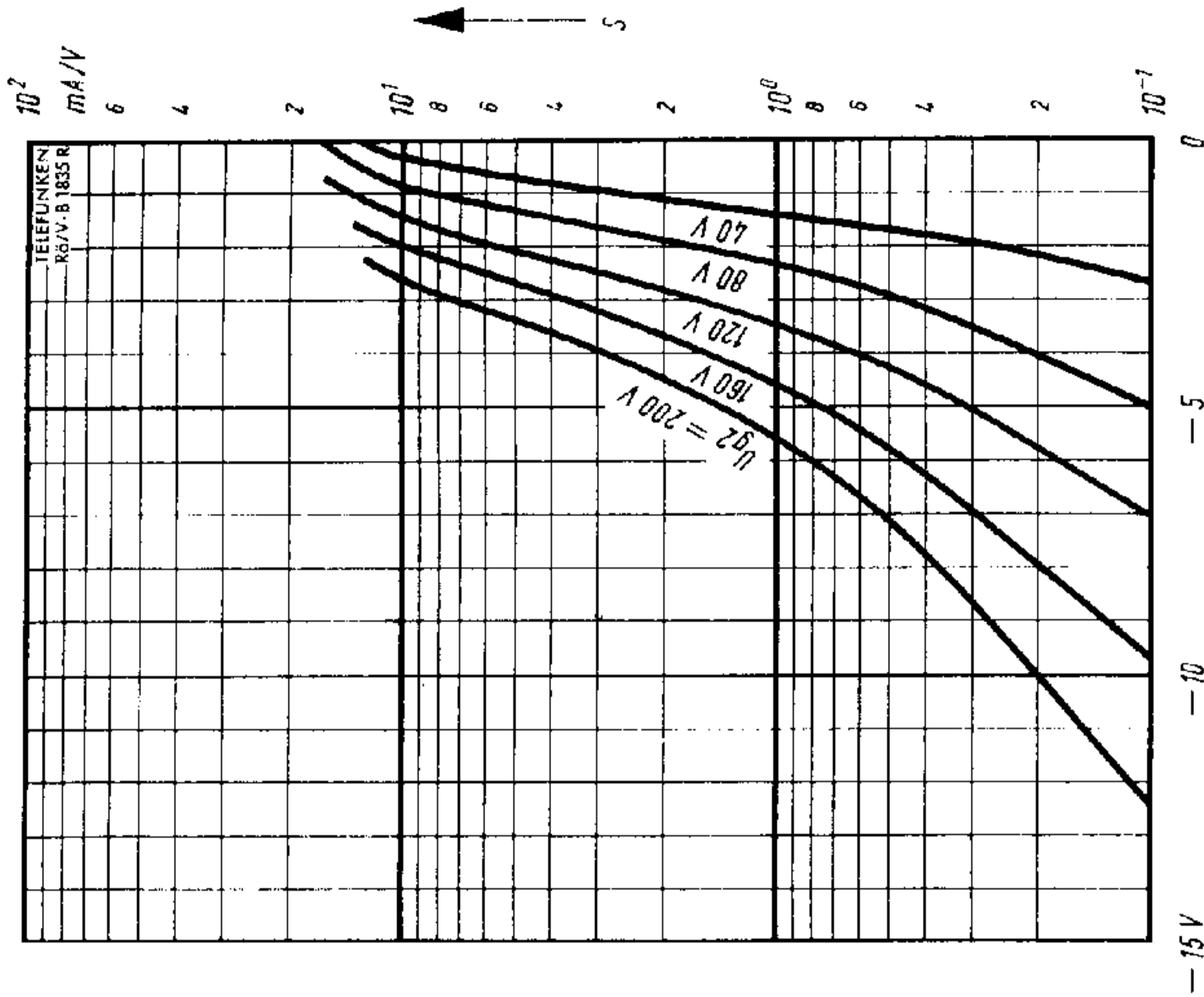
$I_a, I_{g2}, I_{g1}, S_c = f(U_{oszeff})$
 $U_b = 200 \text{ V}$
 $R_a = 2,7 \text{ k}\Omega$
 $R_{g2} = 27 \text{ k}\Omega$
 $R_{g1} = 100 \text{ k}\Omega$
 $U_{bg1} = -1,4 \text{ V}$



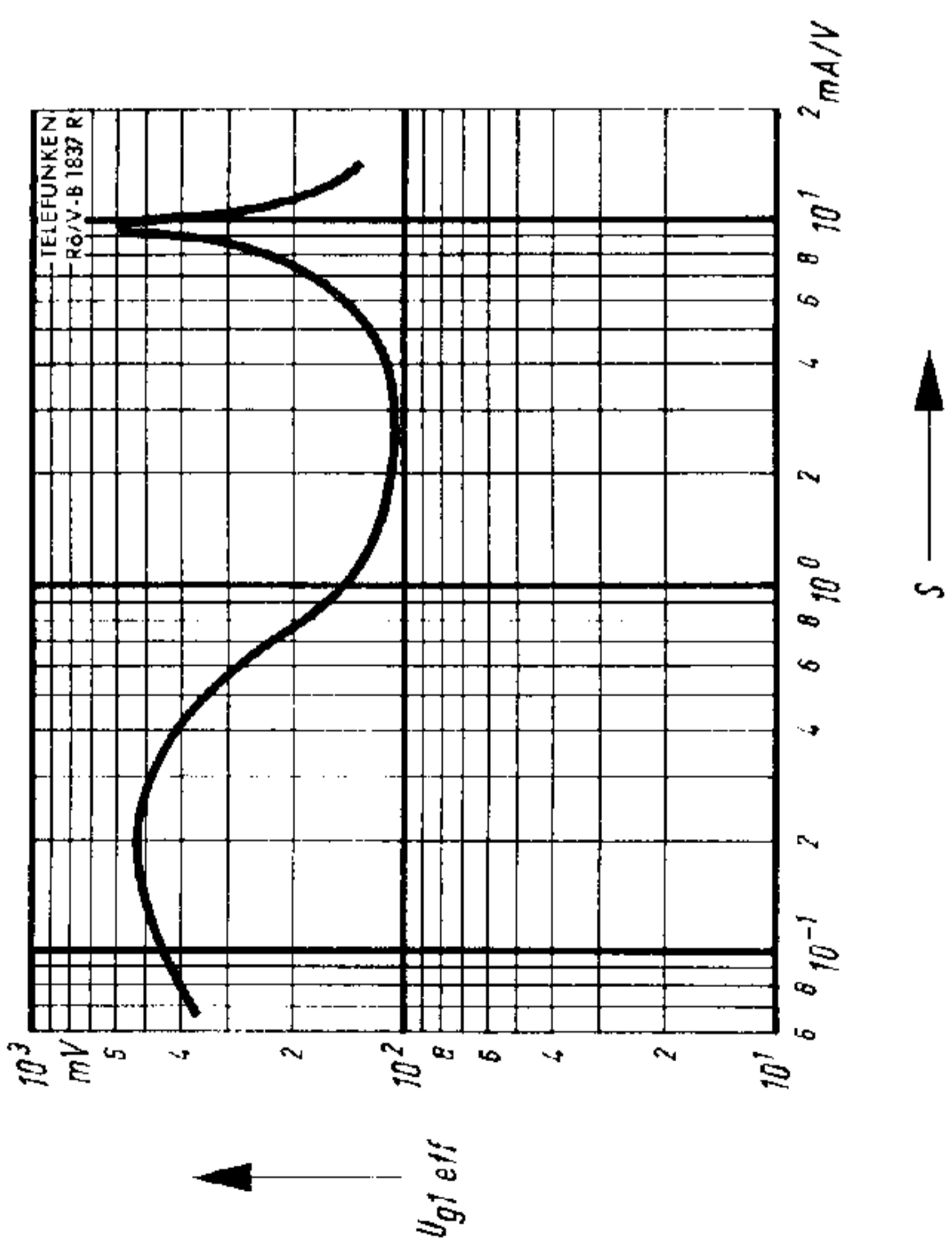
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TELEFUNKEN



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



$U_{g1\text{ eff}} = f(S)$
 $U_b = 200\text{ V}$
 $R_a = 2,7\text{ k}\Omega$
 $R_{g2} = 27\text{ k}\Omega$
 $R_{g1} = 100\text{ k}\Omega$
 $m_k = 1\%$

Pentode

