

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_{oszeff} **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_{oszeff} **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
$R_{g1}^1)$	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

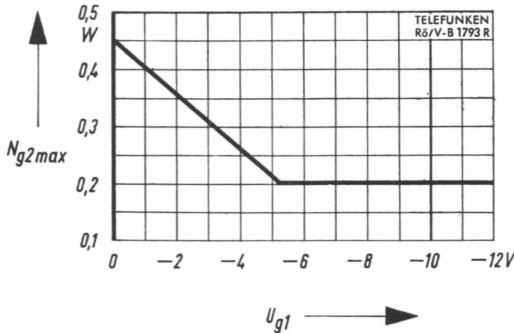
U_{ao}	550	V
U_a	250	V
N_a	2	W
U_{g2o}	550	V
U_{bg2}	250	V
U_{g2}	250	V
$N_{g2} (U_{g1} = 0 V)$	0,45	W
I_k	18	mA
$R_{g1}^1)$	1	M Ω
$R_{g1}^2)$	2,2	M Ω
U_{g1}	-50	V
$U_{f/k}^2)$	100	V

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



$$N_{g2 \max} = f(U_{g1})$$

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

$$c_{aP/aT} < 0,025 \text{ pF}$$

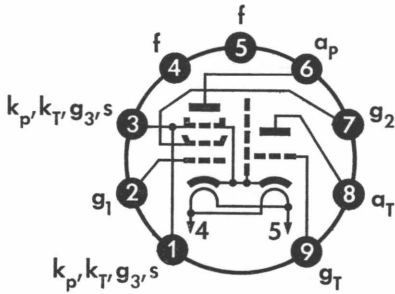
$$c_{aP/gT} < 0,010 \text{ pF}$$

$$c_{g1P/aT} < 0,010 \text{ pF}$$

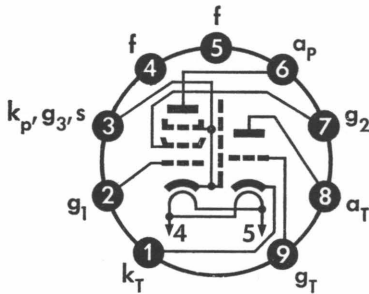
$$c_{g1P/gT} < 0,010 \text{ pF}$$



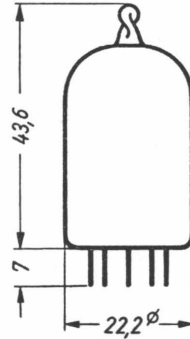
PCF 801

 Sockelschaltbild
 Base connection


Pico 9 · Noval

PCF 803


Pico 9 · Noval

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

 Gewicht · Weight
 max. 12 g

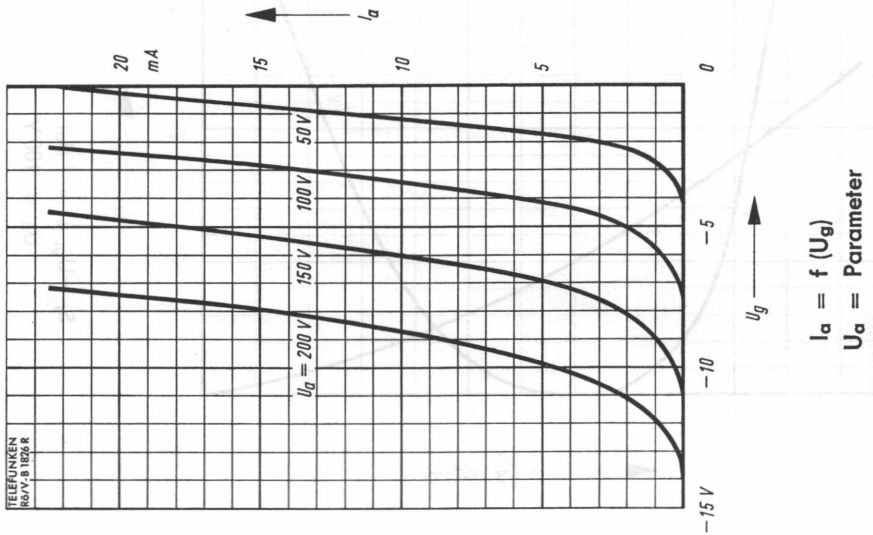
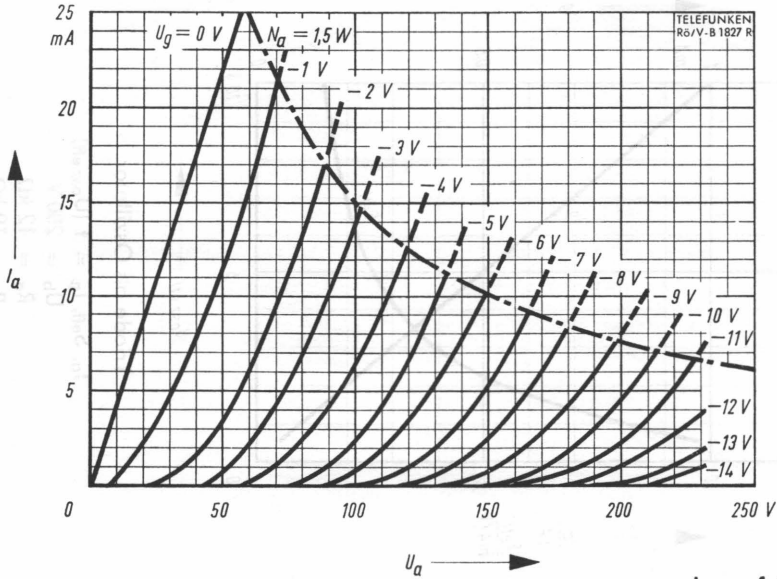
Wenn notwendig, muß gegen Herausfallen der Röhre aus der Fassung Vorsorge getroffen werden.
 Special precautions must be taken to prevent the tube from becoming dislodged.

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1958

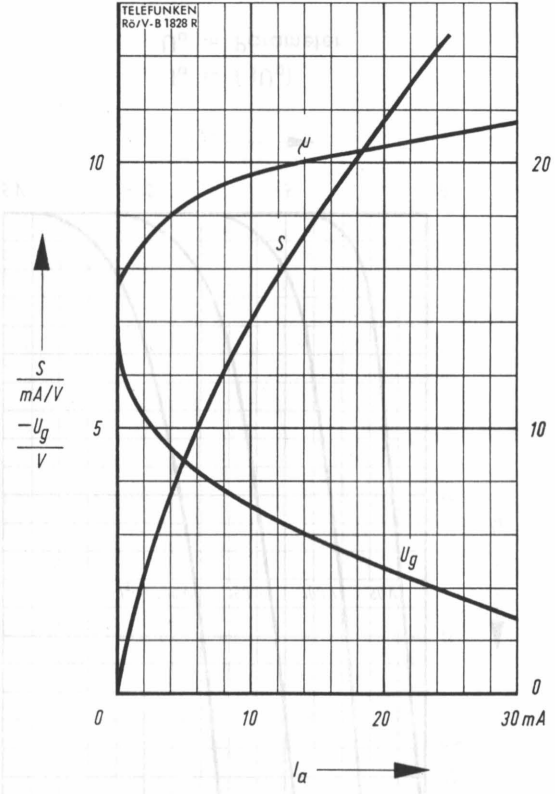
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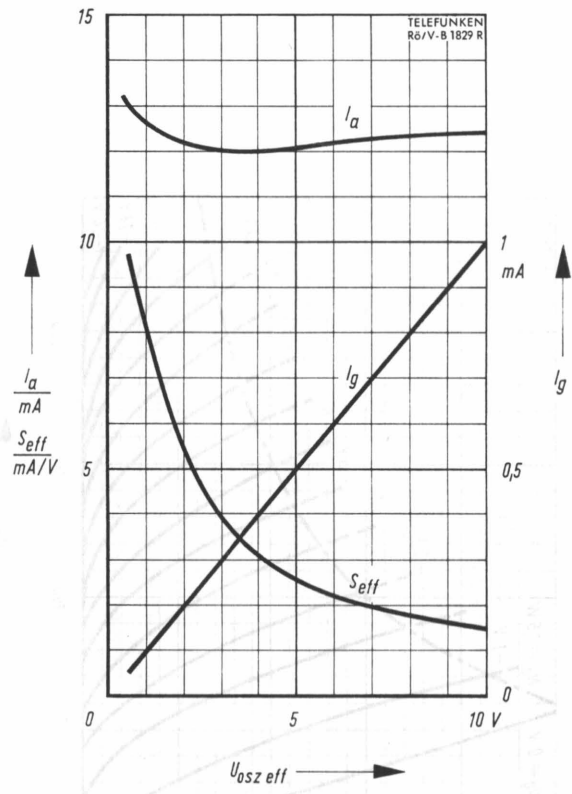
Triode





$S, -U_g, \mu = f(I_a)$
 $U_a = 100 \text{ V}$

Triode

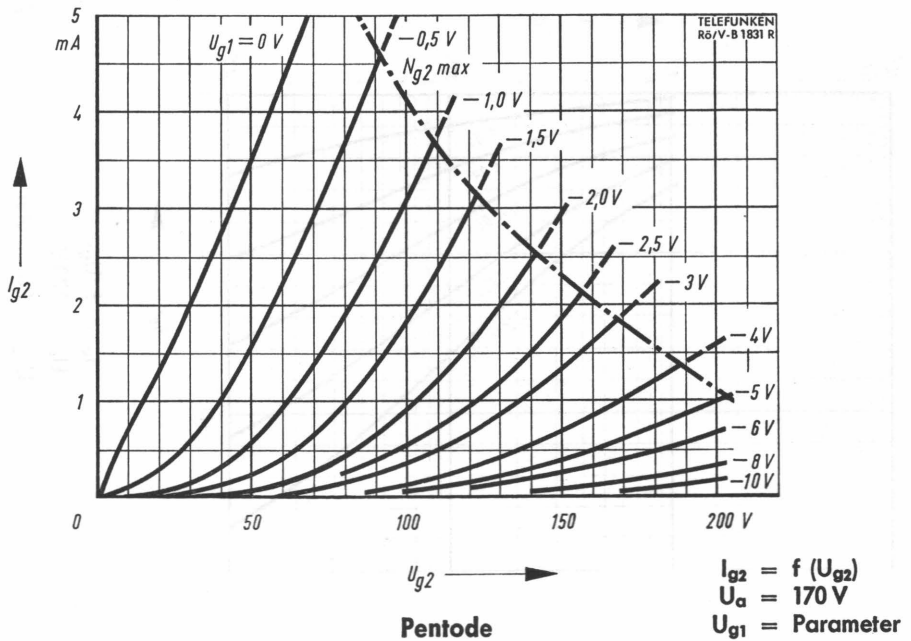
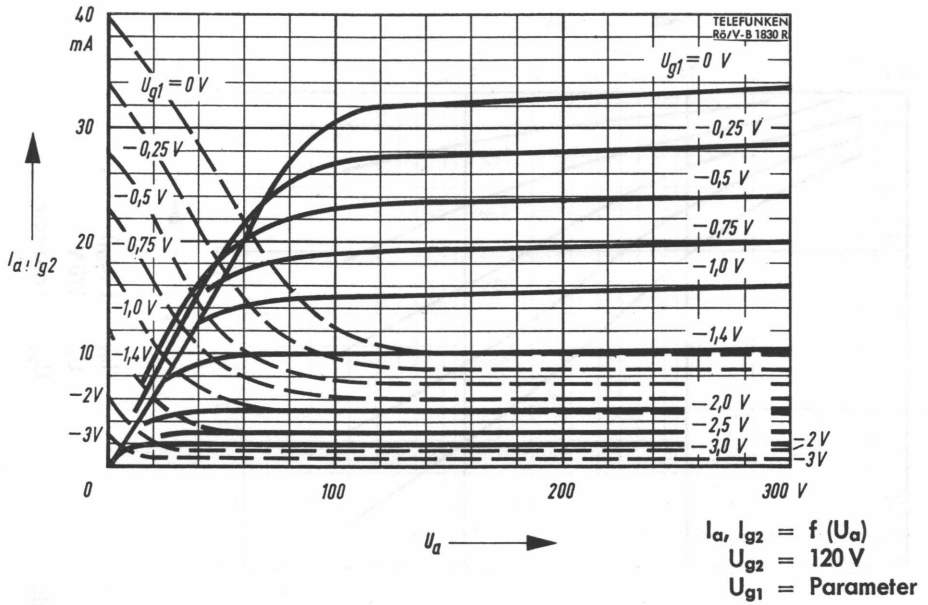


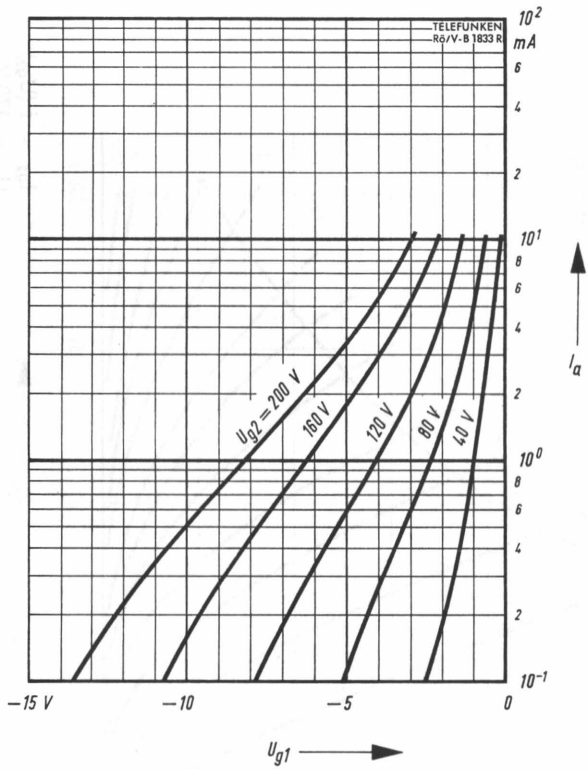
Triode als Oszillator
 $I_a, S_{eff}, I_g = f(U_{osz\ eff})$
 $U_b = 200 \text{ V}$
 $R_a = 12 \text{ k}\Omega$
 $R_g = 10 \text{ k}\Omega$

TELEFUNKEN

PCF 801

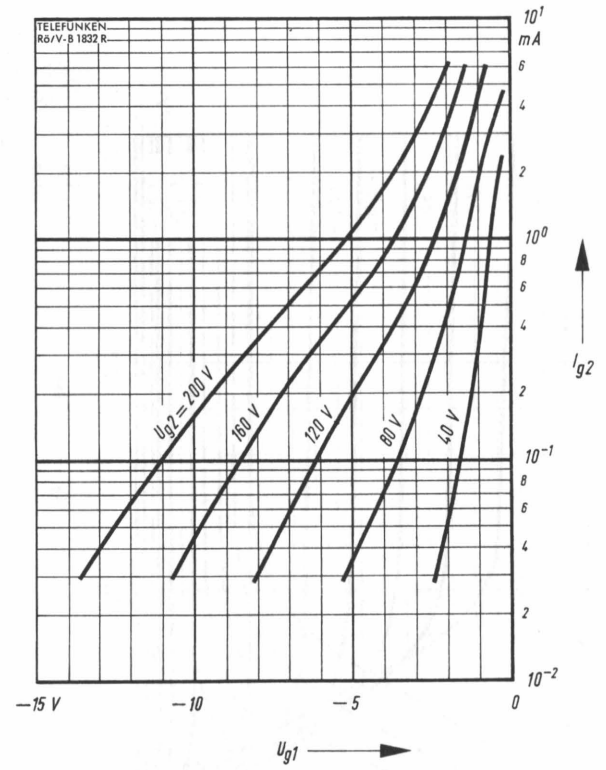
PCF 803



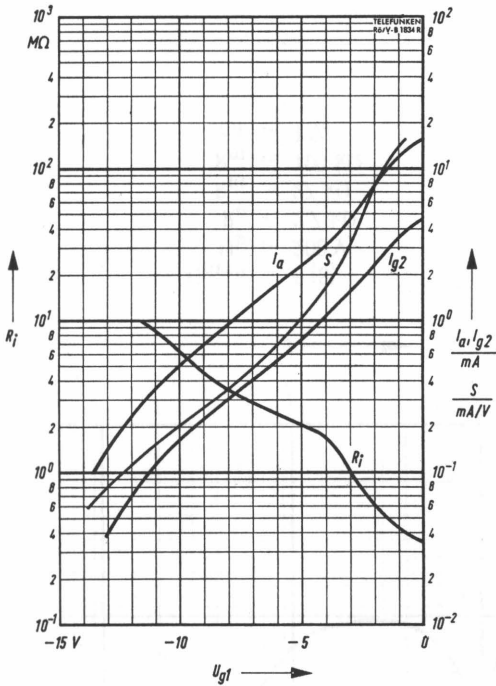


$I_a = f(U_{g1})$
 $U_a = 170\text{ V}$
 $U_{g2} = \text{Parameter}$

Pentode



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



Pentode als Mischstufe
Pentode as mixer

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

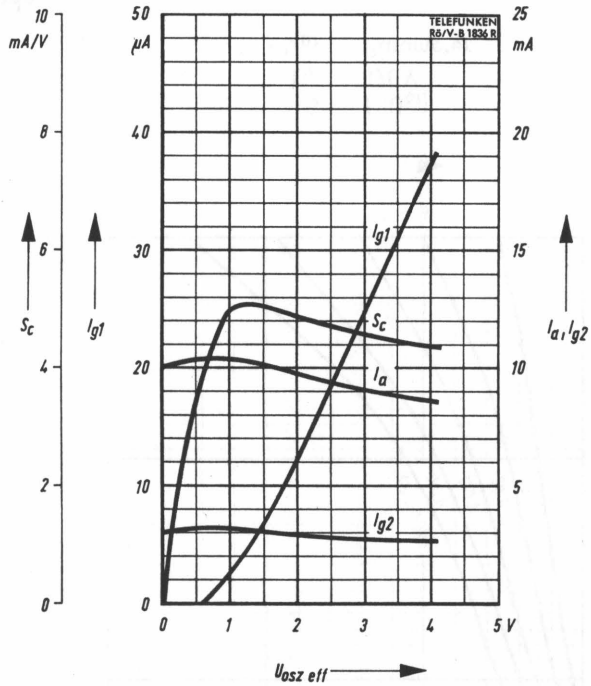
$$U_b = 200\text{ V}$$

$$R_a = 2,7\text{ k}\Omega$$

$$R_{g2} = 27\text{ k}\Omega$$

$$R_{g1} = 100\text{ k}\Omega$$

$$U_{bg1} = -1,4\text{ V}$$



Pentode als ZF-Verstärker
Pentode as IF-amplifier

$$I_a, I_{g2}, S, R_i = f(U_{g1})$$

$$U_b = 200\text{ V}$$

$$R_a = 2,7\text{ k}\Omega$$

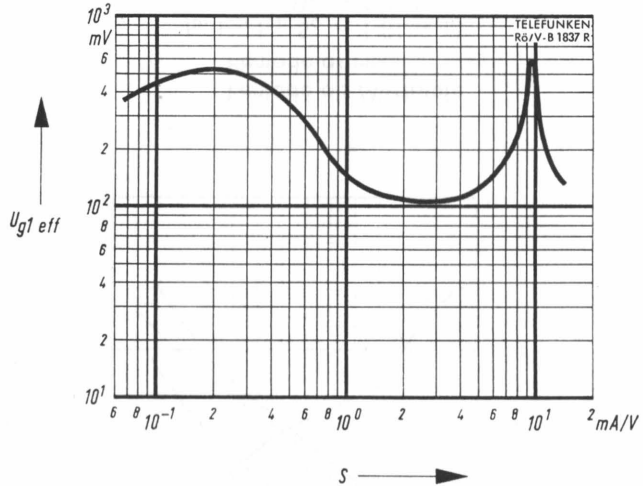
$$R_{g2} = 27\text{ k}\Omega$$

$$R_{g1} = 100\text{ k}\Omega$$



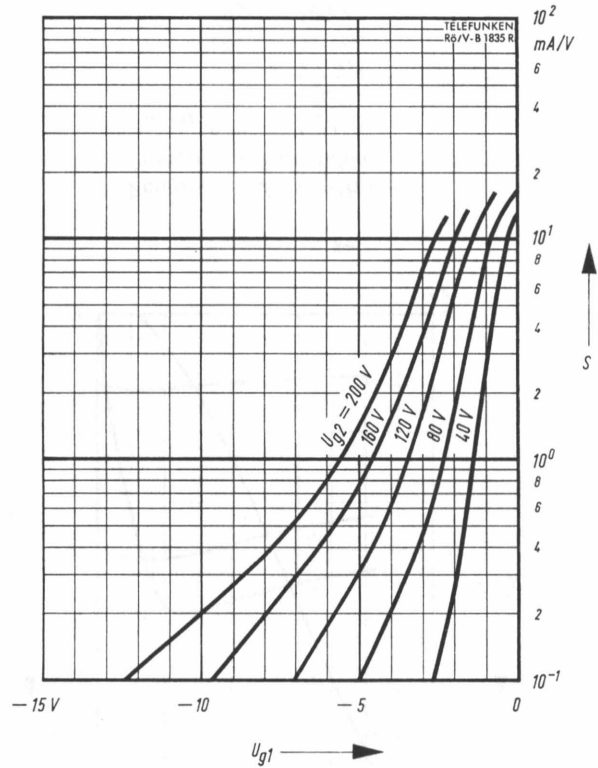
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TELEFUNKEN



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

Pentode



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