

Netzröhre für GW-Heizung
indirekt geheizt
Serien- oder Parallelspeisung
DC-AC-Heating
indirectly heated
connected in parallel or series

TELEFUNKEN

EF 85

Regelbare
HF/ZF-Pentode
Remote Cutoff
RF/IF-Pentode

Meßwerte · Measuring Values

U_a	250	V
U_{g3}	0	V
U_{g2}	100	V
U_{g1}	-2	V
I_a	10	mA
I_{g2}	2,5	mA
S	6	mA/V
R_i	0,6	M Ω
μ_{g2g1}	26	
r_e (50 MHz)	9	k Ω
r_{aeq}	1,4	k Ω

Betriebswerte · Typical Operation

als ZF-Verstärker · as IF-Amplifier

$U_a = U_b$	250	V
U_{g3}	0	V
R_{g2}	60	k Ω
U_{g1}	-2	V
U_{g2}	100	V
I_a	10	mA
I_{g2}	2,5	mA
S	6	mA/V
R_i	0,6	M Ω

$U_a = U_b$	250	V
U_{g3}	0	V
R_{g2}	18¹⁾	k Ω
U_{g1}	-1,9	V
U_{g2}	97	V
I_a	10	mA
I_{g2}	2,5	mA
S	6	mA/V
R_i	0,6	M Ω
r_{aeq}	1,4	k Ω

1) Gemeinsamer Schirmgitter-Vorwiderstand der Röhren EF 85 und ECH 81 als Mischröhre.
 R_{g2} common for the tubes EF 85 and ECH 81 as Mixer.

2) Gemeinsamer Schirmgitter-Vorwiderstand der Röhren EF 85 und ECH 81 als HF- oder ZF-Verstärker.
 R_{g2} common for the tubes EF 85 and ECH 81 as RF- or IF-Amplifier.



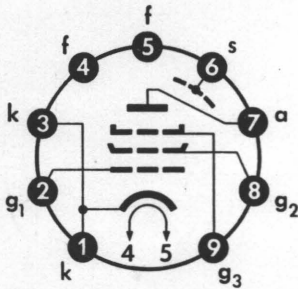
Grenzwerte · Maximum Ratings

U_{a0}	550	V
U_a	300	V
N_a	2,5	W
U_{g20}	550	V
U_{g2}	300	V
N_{g2}	0,65	W
I_k	15	mA
U_{g1e} ($I_{g1} \leq +0,3 \mu A$)	-1,3	V
R_{g1}	3	MΩ
U_{fk}	150	V
R_{fk}	20	kΩ

Kapazitäten · Capacitances

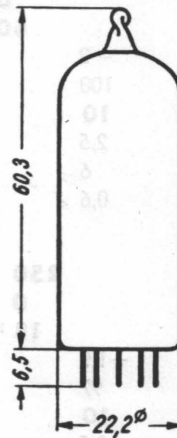
C_e	6,9	pF
C_a	3,2	pF
C_{g1a}	< 0,007	pF
C_{g1f}	< 0,15	pF

**Sockelschaltbild
Base connection**



Pico 9 · Noval

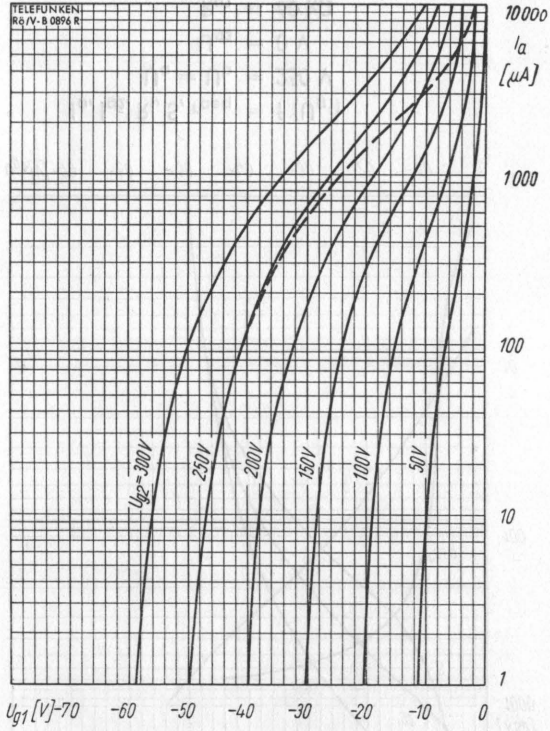
**max. Abmessungen
max. Dimensions
DIN 41539, Nenngröße 50, Form A**



**Gewicht · Weight
max. 18 g**

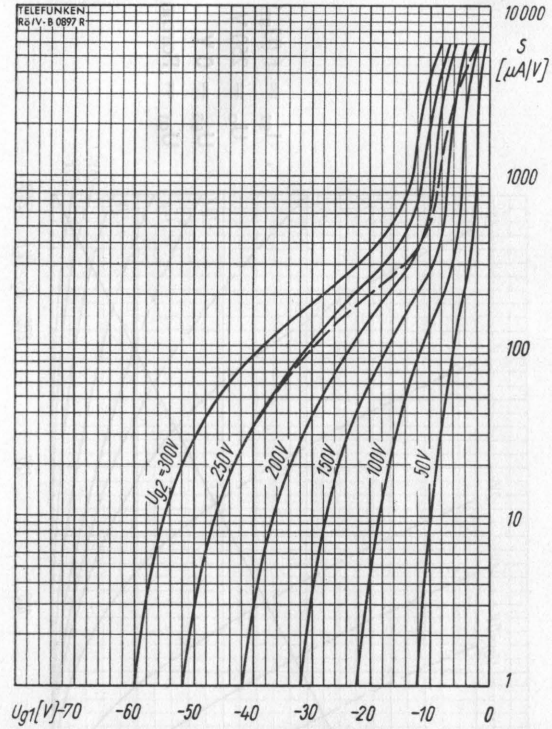
Wenn notwendig, muß gegen Herausfallen der Röhre aus der Fassung Vorsorge getroffen werden.
Special precaution must be taken to prevent the tube from becoming dislodged.



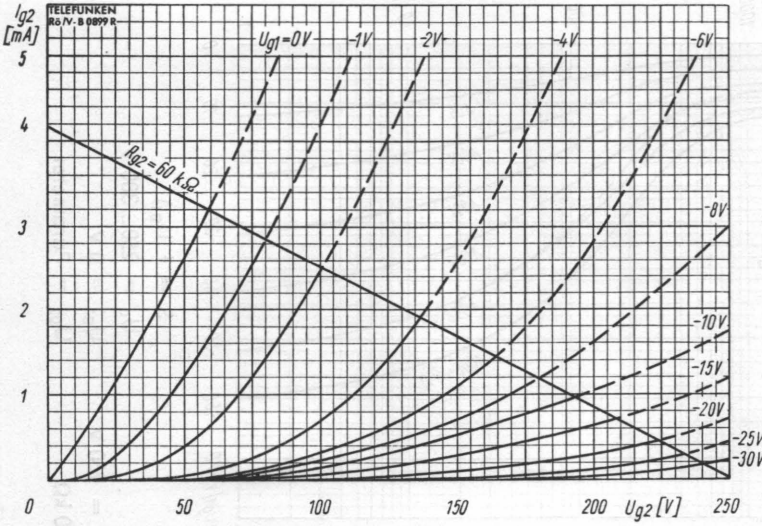


$I_a = f(U_{g1})$
 $U_a = 250 \dots 300 \text{ V}$
 $U_{g3} = 0 \text{ V}$
 $U_{g2} = \text{Parameter}$

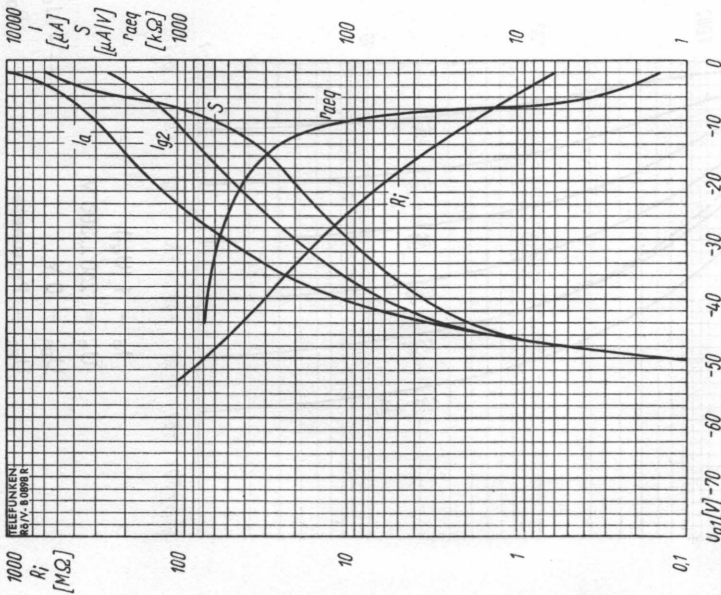
--- $U_a = U_b = 250 \text{ V}$
 $R_{g2} = 60 \text{ k}\Omega$



$S = f(U_{g1})$
 $U_a = 250 \dots 300 \text{ V}$
 $U_{g3} = 0 \text{ V}$
 $U_{g2} = \text{Parameter}$

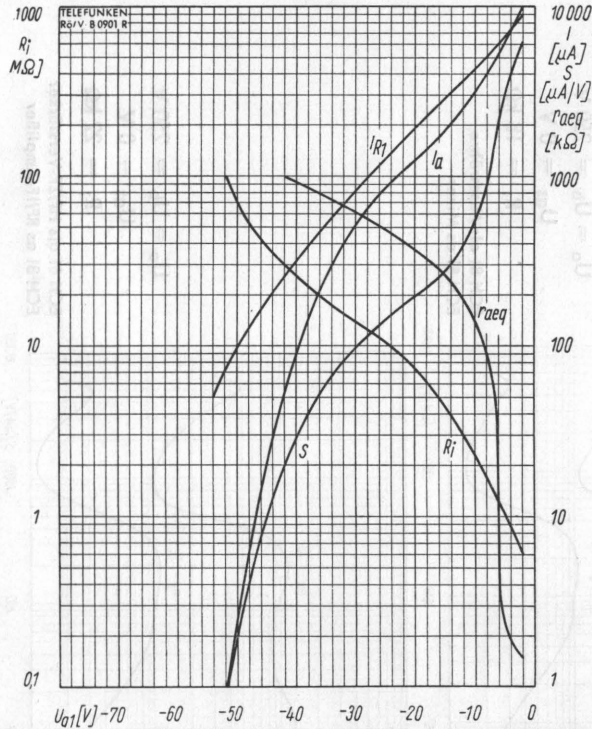


$I_{g2} = f(U_{g2})$
 $U_a = 250 \text{ V}$
 $U_{g3} = 0 \text{ V}$
 $U_{g1} = \text{Parameter}$



$I_a, I_{g2}, R_i, S, r_{aeq} = f(U_{g1})$
 $U_a = U_b = 250 \text{ V}$
 $U_{g3} = 0 \text{ V}$
 $R_{g2} = 60 \text{ k}\Omega$





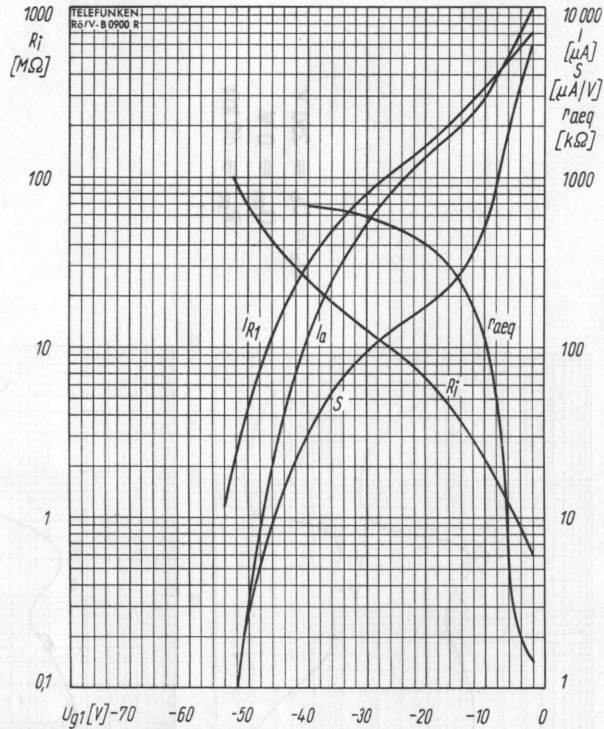
$$I_a, I_{R1}, R_i, S, r_{aeq} = f(U_{g1})$$

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

$$U_{g3} = 0 \text{ V}$$

$$R_1 = 18 \text{ k}\Omega$$

ECH 81 als Mischröhre · ECH 81 als Mixer



$$I_a, I_{R1}, R_i, S, r_{aeq} = f(U_{g1})$$

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

$$U_{g3} = 0 \text{ V}$$

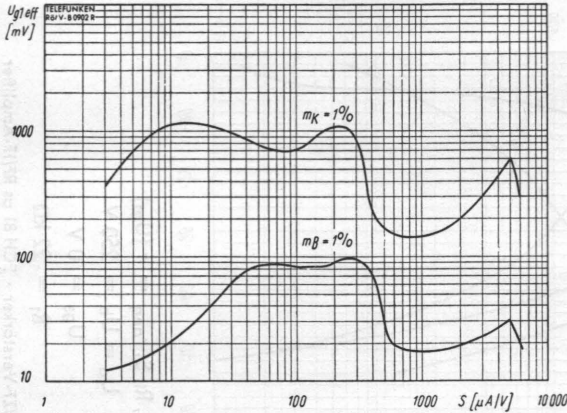
$$R_1 = 22 \text{ k}\Omega$$

ECH 81 als HF/ZF-Verstärker · ECH 81 als RF/IF-Amplifier

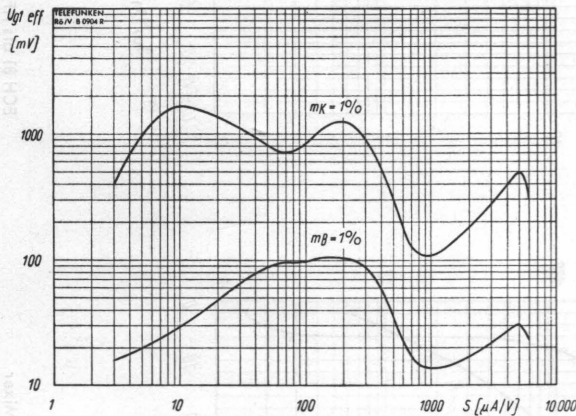
I_{R1} = Summe der Schirmgitterströme der Röhren EF 85 und ECH 81 in gemeinsamem Schirmgitter-Vorwiderstand R_1

I_{R1} = Sum of the screen-grid currents to the tubes EF 85 and ECH 81 in common screen-grid resistor R_1

Kurven für Kreuz- und Brumm-Modulation Curves for cross- and hum modulation

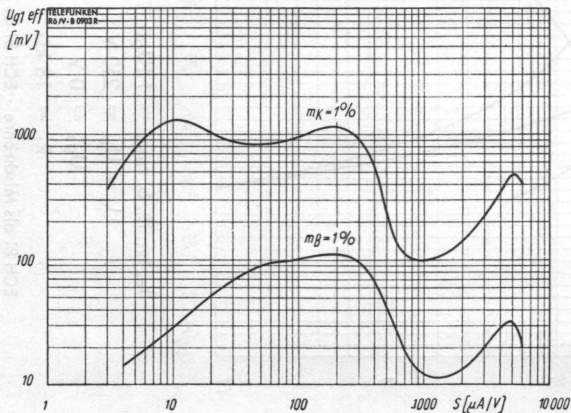


$U_a = U_b = 250 V$
 $U_{gs} = 0 V$
 $R_{g2} = 60 k\Omega$



$U_a = U_b = 250 V$
 $U_{gs} = 0 V$
 $R_1 = 18 k\Omega$

ECH 81 als Mischröhre
 ECH 81 as Mixer



$U_a = U_b = 250 V$
 $U_{gs} = 0 V$
 $R_1 = 22 k\Omega$

ECH 81 als HF/ZF-Verstärker
 ECH 81 as RF/IF-Amplifier

$R_1 =$ gemeinsamer Schirmgitter-Vorwiderstand der Röhren EF 85 und ECH 81
 $R_1 =$ common screen-grid resistor of the tubes EF 85 and ECH 81

