

Netzröhre für GW-Heizung
indirekt geheizt
Parallelspeisung

DC-AC-Heating
indirectly heated
connected in parallel

TELEFUNKEN

EL 86

Endpentode

Power pentode

Verwendung · Application

Speziell für transformatorlose Gegentakt-Endstufen
Especially for single-ended push-pull stages

U_f	6,3	V
I_f	760	mA

Meßwerte · Measuring values

U_a	100	170	V
U_{g2}	100	170	V
U_{g1}	-6,7	-12,5	V
I_a	43	70	mA
I_{g2}	3	5	mA
S	9	10	mA/V
R_i	23	23	k Ω
μ_{g2g1}	8	8	

Betriebswerte · Typical operation

Eintakt-A-Betrieb · Class A amplifier

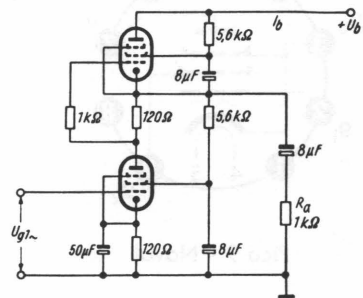
U_a	100	170	V
U_{g2}	100	170	V
U_{g1}	-6,7	-12,5	V
I_a	43	70	mA
I_{g2o}	3	5	mA
I_{g2} ausgest.	11	22	mA
R_a	2,4	2,4	k Ω
U_{g1} eff (N)	4,3	7	V
N (10%)	1,9	5,6	W
U_{g1} eff (50 mW)	0,55	0,5	V

Betriebswerte · Typical operation

als transformatorlose Gegentakt-Endstufe
single-ended push-pull stage

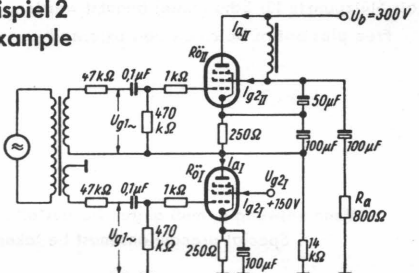
U_b	300	V
I_{bo}	69	mA
I_b ausgest.	67	mA
R_a	1	k Ω
U_{g1} eff (N)	5,7	V
N (9,3%)	4,8	W
U_{g1} eff (50 mW)	0,55	V

Schaltbeispiel 1 · Circuit example



U_b	300	V
I_{a11o}	52	mA
I_{a11} ausgest.	51,5	mA
I_{g211o}	3,9	mA
I_{g211} ausgest.	10,1	mA
R_a	800	Ω
U_{g1} eff (N)	9,9	V
N (2,9%)	7,5	W
U_{g1} eff (50 mW)	0,53	V

Schaltbeispiel 2 Circuit example



Grenzwerte · Maximum ratings

U_{a0}	550	V
U_a	250	V
N_a	12	W
U_{g20}	550	V
U_{g2}	200	V
N_{g2}	1,75	W
$N_{g2 \text{ ausgest.}}$	6	W
I_k	100	mA
$R_{g1}^{1)}$	1	MΩ
$U_{f/k+sp}^2$	300	V
$U_{f/k-}$	100	V
R_{fk}	20	kΩ

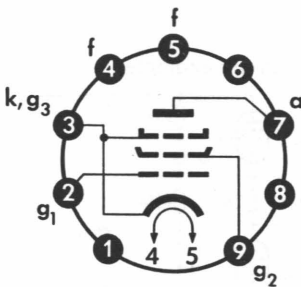
Kapazitäten · Capacitances

C_{g1}	12	pF
C_a	6	pF
$C_{g1/a}$	< 1	pF
$C_{g1/f}$	< 0,25	pF

1) U_{g1} autom. · cathodes grid bias

2) Gleichspannungsanteil max. 150 V · DC-component max. 150 V

**Sockelschaltbild
Base connection**



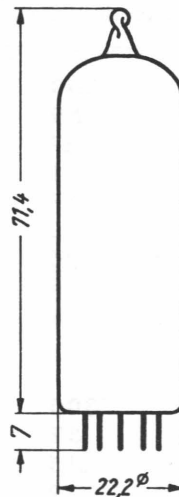
Pico 9 · Noval

Freie Stifte bzw. Fassungskontakte dürfen nicht als Stützpunkte für Schaltmittel benutzt werden.

Free pins not to be connected externally.

**max. Abmessungen
max. dimensions**

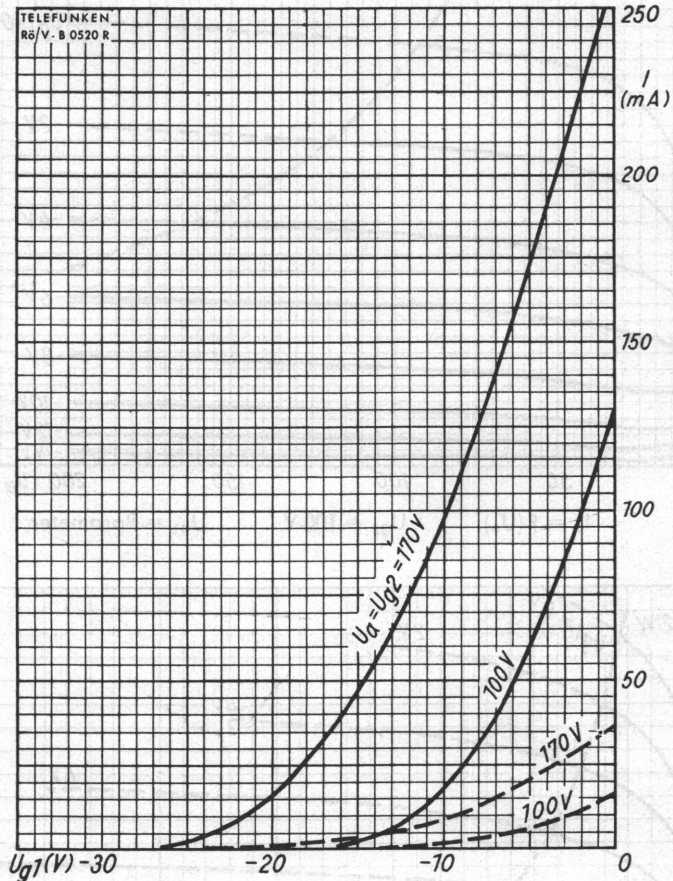
DIN 41 539, Nenngröße 62, Form A



**Gewicht · Weight
max. 20 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.

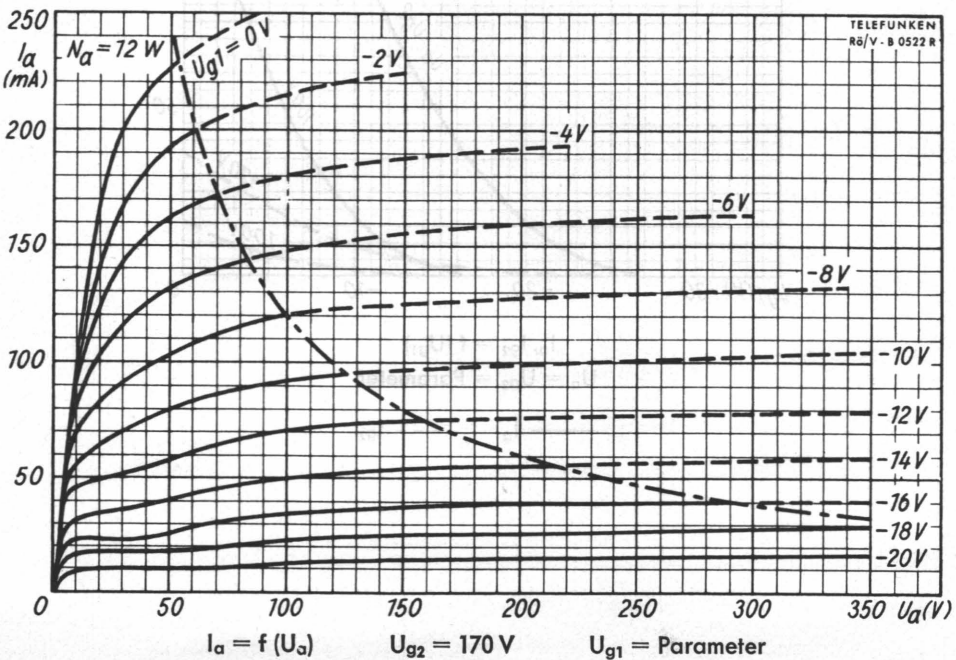
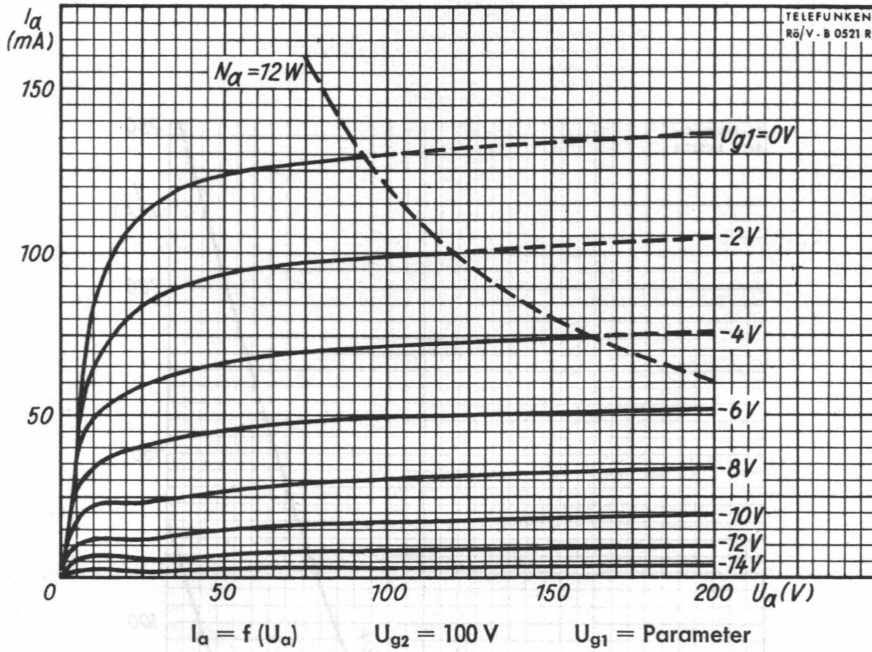


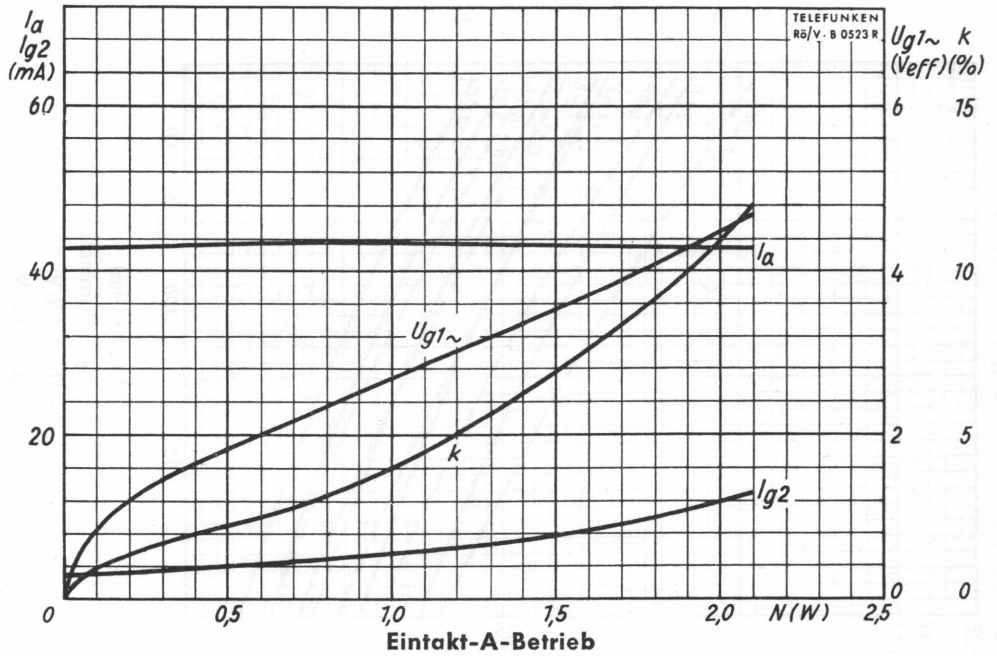


$I_a, I_{g2} = f(U_{g1})$
 $U_a = U_{g2} = \text{Parameter}$
 — I_a - - - I_{g2}

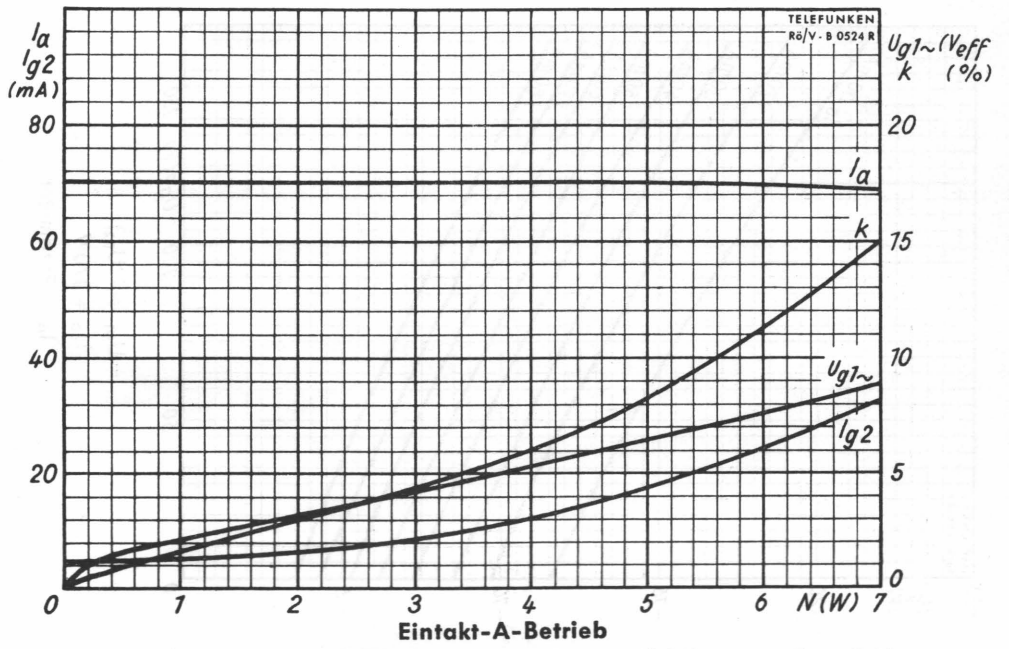


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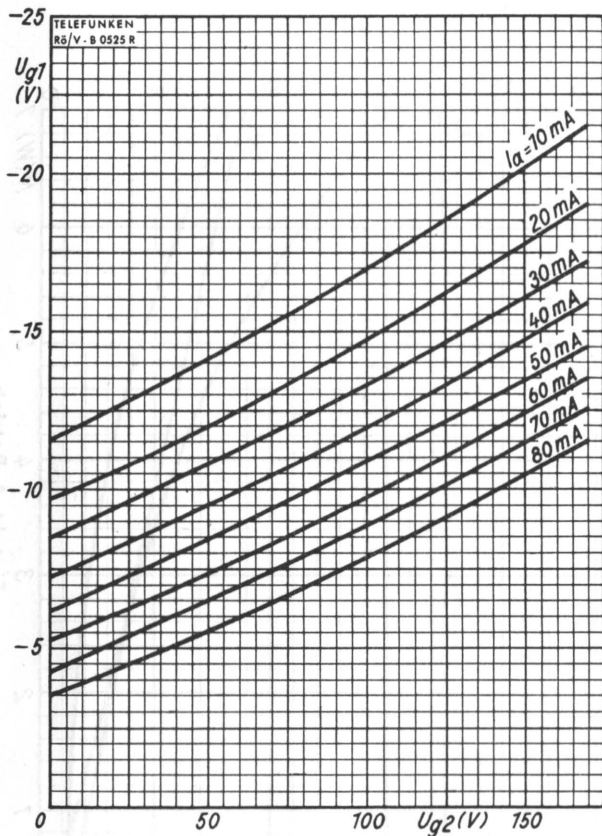


$I_a, I_{g2}, U_{g1\sim}, k = f(N)$ $U_a = 100 V$ $U_{g2} = 100 V$ $U_{g1} = -6,7 V$ $R_a = 2,4 k\Omega$

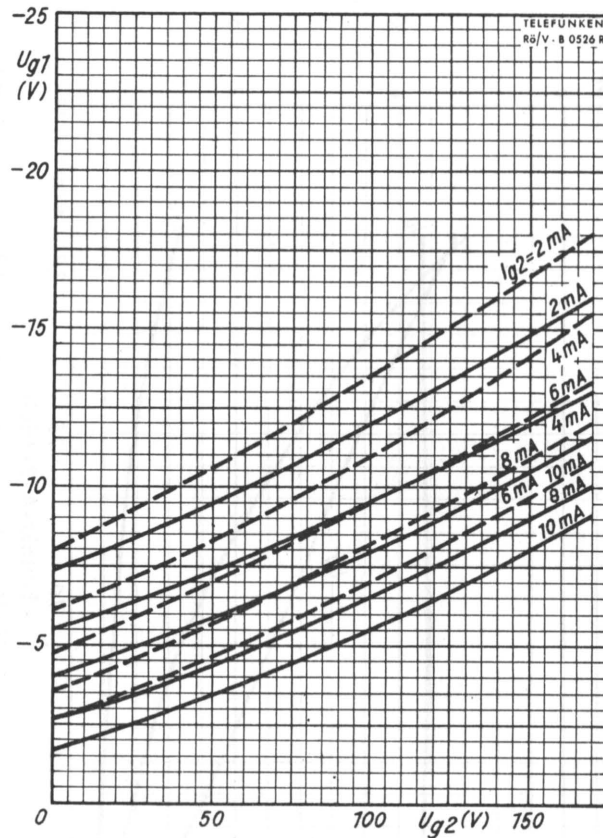


$U_a = 170 V$ $U_{g2} = 170 V$ $U_{g1} = -12,5 V$ $R_a = 2,4 k\Omega$

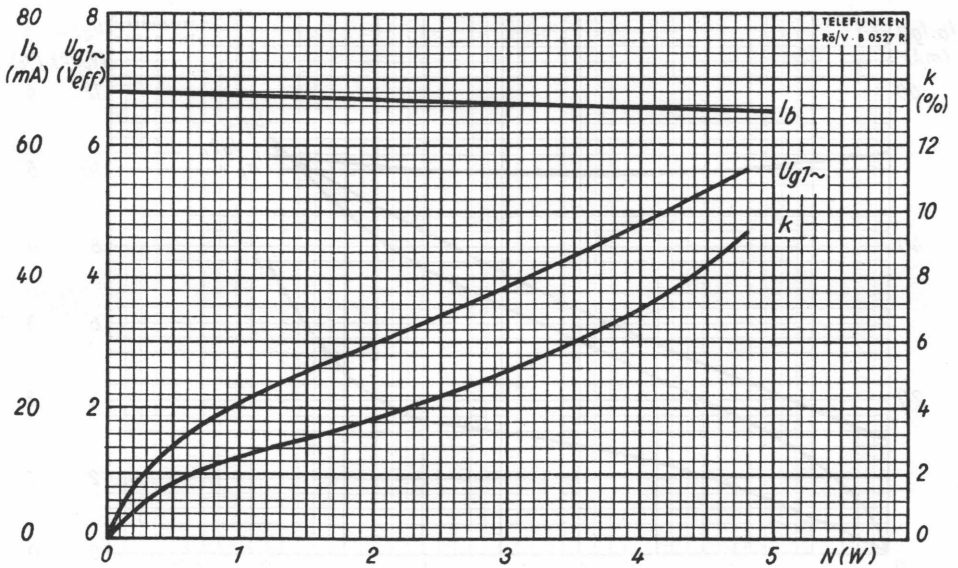




$-U_{g1} = f(U_{g2})$
 $U_a = 170 \text{ V}$
 $I_a = \text{Parameter}$



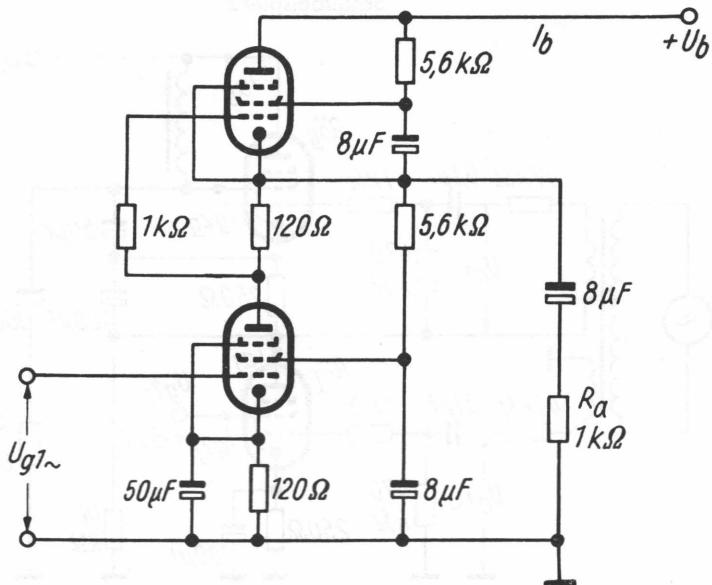
$-U_{g1} = f(U_{g2})$
 $I_{g2} = \text{Parameter}$
— $U_a = 170 \text{ V}$
- - - $U_a = 100 \text{ V}$

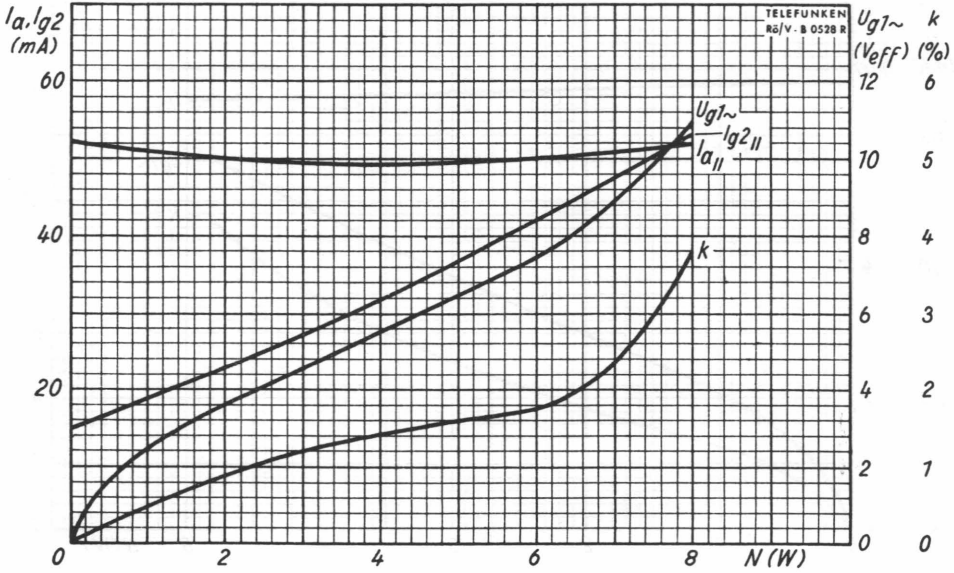


$I_b, U_{g1\sim}, k = f(N)$
 $U_b = 300 \text{ V}$
 $R_a = 1 \text{ k}\Omega$

Als transformatorlose Gegentakt-Endstufe

Schaltbeispiel 1





$I_a, I_{g2}, U_{g1\sim}, k = f(N)$
 $U_b = 300 \text{ V}$
 $R_a = 800 \Omega$

Als transformatorlose Gegentakt-Endstufe

Schaltbeispiel 2

