

PENTODE for use as H.F. and L.F. amplifier and oscillator

PENTHODE pour utilisation comme amplificatrice H.F. et B.F. et oscillatrice

PENTHODE zur Verwendung als H.F. und N.F. Verstärker und Oszillator

Cathode : oxide-coated

Cathode : oxyde

Kathode : Oxyd

Heating : indirect

Chauffage : indirect

Heizung : indirekt

V_f = 12,6 V

I_f = 0,7 A

Capacitances

C_a = 7,8 pF

Capacités

C_{g1} = 14,5 pF

Kapazitäten

C_{ag1} = 0,15 pF

Typical characteristics

Caractéristiques typiques

Kenndaten

μg2g1 = 7,6

S (I_a=30 mA) = 3,3 mA/V

λ	Freq.	C telegr.		B teleph.		C ag2 mod.	
m	Mc/s	Va (V)	Wo (W)	Va (V)	Wo (W)	Va (V)	Wo (W)
>3	<100	500	33	500	6	400	20
		400	28	400	5,4	300	16
		300	24				
		λ		Freq.		C fr.mult.	
		m		Mc/s		Va (V)	Wo (W)
		5,4/1,8		55/165		400	9

Limiting values

Caractéristiques limites

Grenzdaten

V_a = max. 500 V

R_{g1} = max. 50 kΩ ¹⁾

W_a = max. 12 W

R_{g1} = max. 100 kΩ ²⁾

V_{g2} = max. 300 V

I_k = max. 130 mA

W_{g2} = max. 5 W

I_{kp} = max. 800 mA

W_{g1} = max. 0,5 W

V_{fk} = max. 75 V

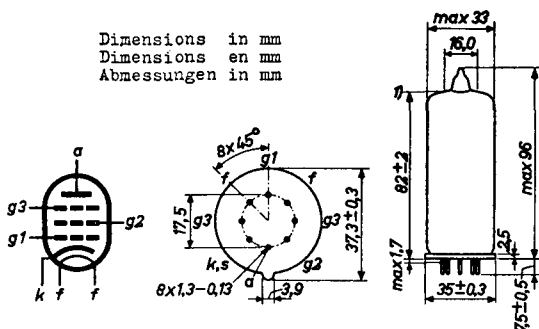
bottomtemperature
température du fond
Bodentemperatur

= max. 180 °C

¹⁾ With fixed grid bias; à polarisation fixe; mit fester Gittervorspannung

²⁾ With automatic grid bias; à polarisation automatique; mit automatischer Gittervorspannung

Dimensions in mm
 Dimensions en mm
 Abmessungen in mm



Socket
 Support
 Fassung

40210/02

Mounting position: arbitrary
 Montage : arbitrairement
 Einbau : willkürlich

Net weight
 Poids net
 Nettogewicht

50 g

Shipping weight
 Poids brut
 Bruttogewicht

65 g

1) Reference line
 Ligne de référence
 Bezugslinie

Operating conditions H.F. class C telegraphy
 Caractéristiques d'utilisation H.F. classe C télé-
 graphie
 Betriebsdaten H.F. Klasse C Telegraphie

λ	=	>3	>3	>3	m
V_a	=	500	400	300	V
V_{g1}	=	-80	-80	-80	V
V_{g2}	=	250	250	250	V
V_{g3}	=	0	0	0	V
I_a	=	90	100	117	mA
I_{g1}	=	3	3,5	4,5	mA
I_{g2}	=	5	5,5	8	mA
V_{g1p}	=	96	103	110	V
W_{ig1}	=	0,26	0,33	0,45	W
W_{g2}	=	1,25	1,4	2	W
W_{ia}	=	45	40	35,1	W
W_a	=	12	12	11,1	W
W_o	=	33	28	24	W
η	=	73,5	70	68	%

Operating conditions H.F. class B telephony
 Caractéristiques d'utilisation H.F. classe B télé-
 phonie
 Betriebsdaten H.F. Klasse B Telephonie

λ	=	>3	>3	m
V_a	=	500	400	V
V_{g1}	=	-28	-28	V
V_{g2}	=	250	250	V
V_{g3}	=	0	0	V
I_a	=	36	42,5	mA
I_{g2}	=	3	3,5	mA
V_{g1p}	=	17,5	21,25	V
W_{g2}	=	0,75	0,9	W
W_{ia}	=	18	17	W
W_a	=	12	11,6	W
W_o	=	6	5,4	W
η	=	33,5	32	%
m	=	100	100	%
I_{g1}	=	2	3,4	mA
W_{ig1}	=	0,07	0,13	W

Operating conditions H.F. class C anode- and screen grid modulation

Caractéristiques d'utilisation H.F. classe C modulation d'anode et de grille-écran

Betriebsdaten H.F. Klasse C Anoden- und Schirmgittermodulation

λ	=	>3	>3	m
V_a	=	400	300	V
V_{g1}	=	-80	-80	V
V_{g2}	=	200	200	V
V_{g3}	=	0	0	V
I_a	=	70	77	mA
I_{g1}	=	2,5	3,5	mA
I_{g2}	=	4,5	7	mA
V_{g1p}	=	100	105	V
W_{ig1}	=	0,25	0,35	W
W_{g2}	=	0,9	1,4	W
W_{ia}	=	28	23	W
W_a	=	8	7	W
W_o	=	20	16	W
	=	71	69,5	%
m	=	100	100	%
V_{g2p}	=	190	190	V
W_{mod}	=	15	13	W

Operating conditions as class C frequency multiplier
Caractéristiques d'utilisation comme multiplicatrice de fréquence classe C

Betriebsdaten als Klasse C Frequenzvervielfacher

λ	=	5,4/1,8	5,4/1,8	5,4/1,8	m
V_a	=	400	400	400	V
V_{g1}	=	-175	-200	-250	V
V_{g2}	=	250	250	250	V
V_{g3}	=	0	0	0	V
I_a	=	47	50	52,5	mA
I_{g1}	=	0,9	1	1,2	mA
I_{g2}	=	2	2,5	3	mA
V_{g1p}	=	200	220	270	V
W_{ig1}	=	0,16	0,2	0,3	W
W_{g2}	=	0,5	0,65	0,75	W
W_{ia}	=	18,8	20	21	W
W_a	=	12	12	12	W
W_o	=	6,8	8	9	W
η	=	36	40	43	%

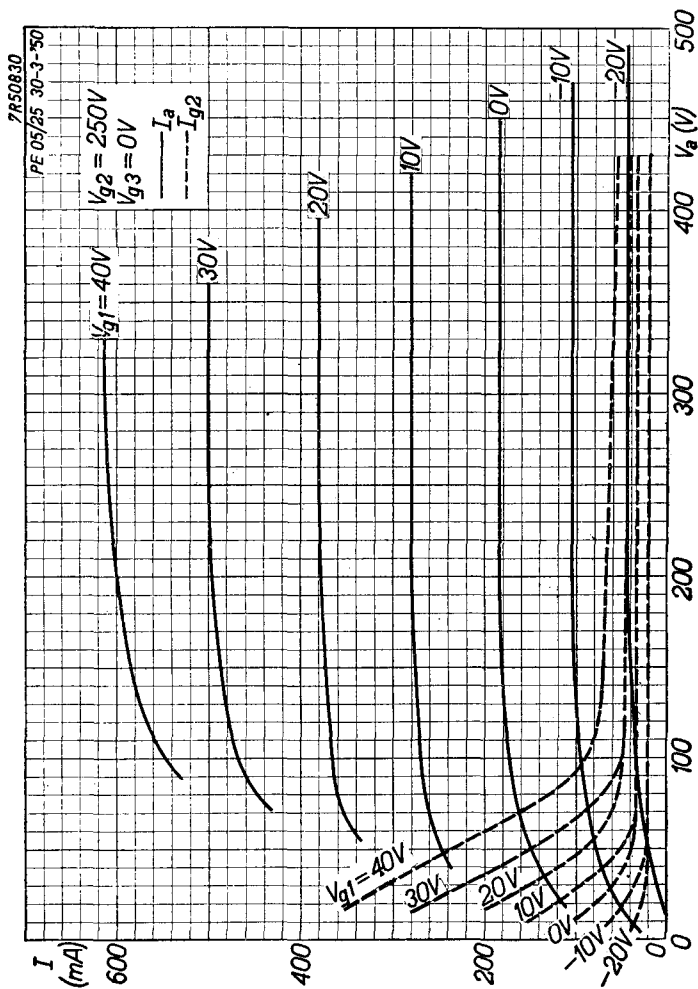
Operating conditions as L.F. class B amplifier and modulator, two valves

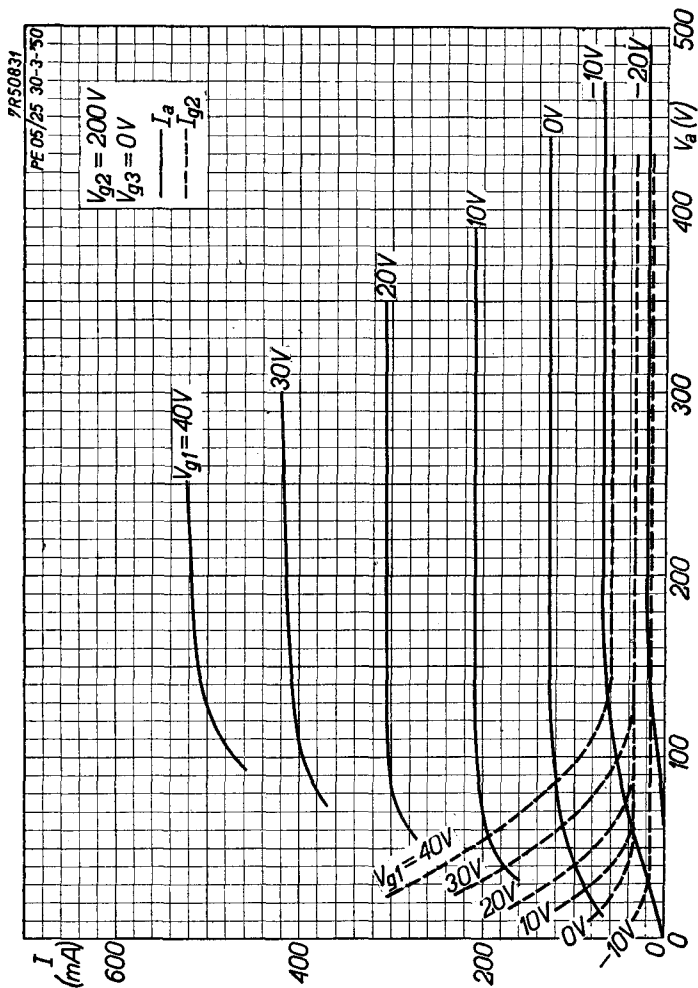
Caractéristiques d'utilisation comme amplificateur et modulateur B.F. classe B, deux tubes

Betriebsdaten als NF - Klasse B Verstärker und Modulator, zwei Röhren

V_a	=	500		400	V	
V_{g1}	=	-24		-18,5	V	
V_{g2}	=	250		200	V	
V_{g3}	=	0		0	V	
R_{aa}	=	9		5,5	k Ω	
V_{g1g1p}	=	0	70	0	82	V
I_a	=	2x18	2x71	2x15	2x89	mA
I_{g1}	=	0	2x1,8	0	2x4,4	mA
I_{g2}	=	2x0,6	2x11,2	2x0,5	2x10,5	mA
W_{ig1}	=	0	2x57	0	2x165	mW
W_{g2}	=	2x0,15	2x2,8	2x0,1	2x2,1	W
W_{ia}	=	2x9	2x35,5	2x6	2x35,5	W
W_a	=	2x9	2x11	2x6	2x11	W
W_o	=	0	49	0	49	W
d_{tot}	=	-	5	-	5	%
η	=	-	69	-	69	%

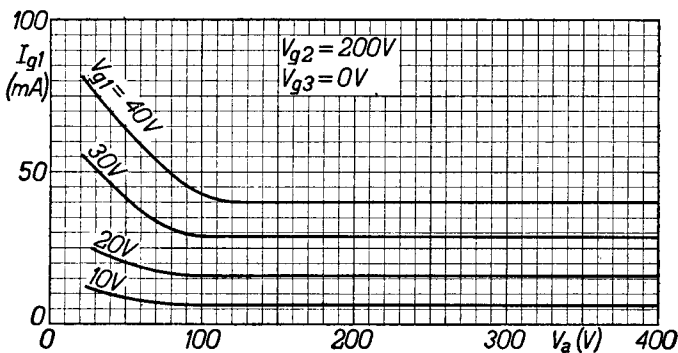
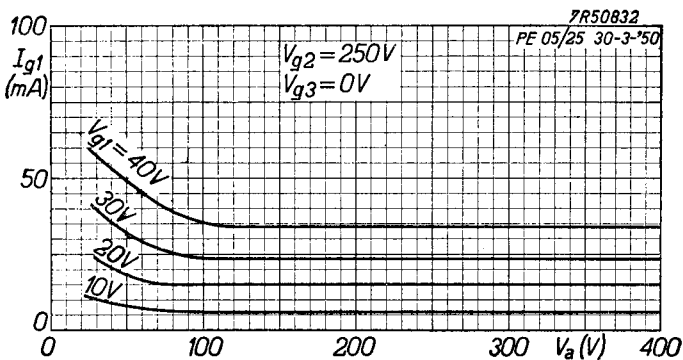
V_a	=	300	V
V_{g1}	=	-18	V
V_{g2}	=	200	V
V_{g3}	=	0	V
R_{aa}	=	3	k Ω
V_{g1g1p}	=	0 100	V
I_a	=	2x15 2x108	mA
I_{g1}	=	0 2x6	mA
I_{g2}	=	2x0,5 2x13	mA
W_{ig1}	=	0 2x270	mW
W_{g2}	=	2x0,1 2x2,6	W
W_{ia}	=	2x4,5 2x32,5	W
W_a	=	2x4,5 2x12,5	W
W_o	=	0 40	W
d_{tot}	=	- 5	%
η	=	- 62	%

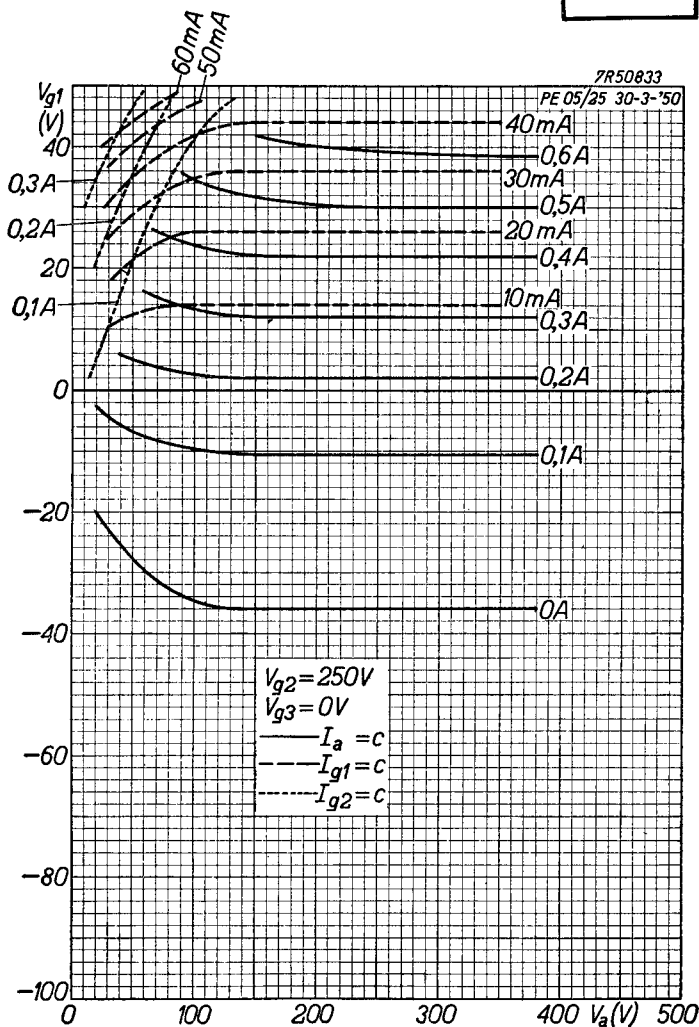


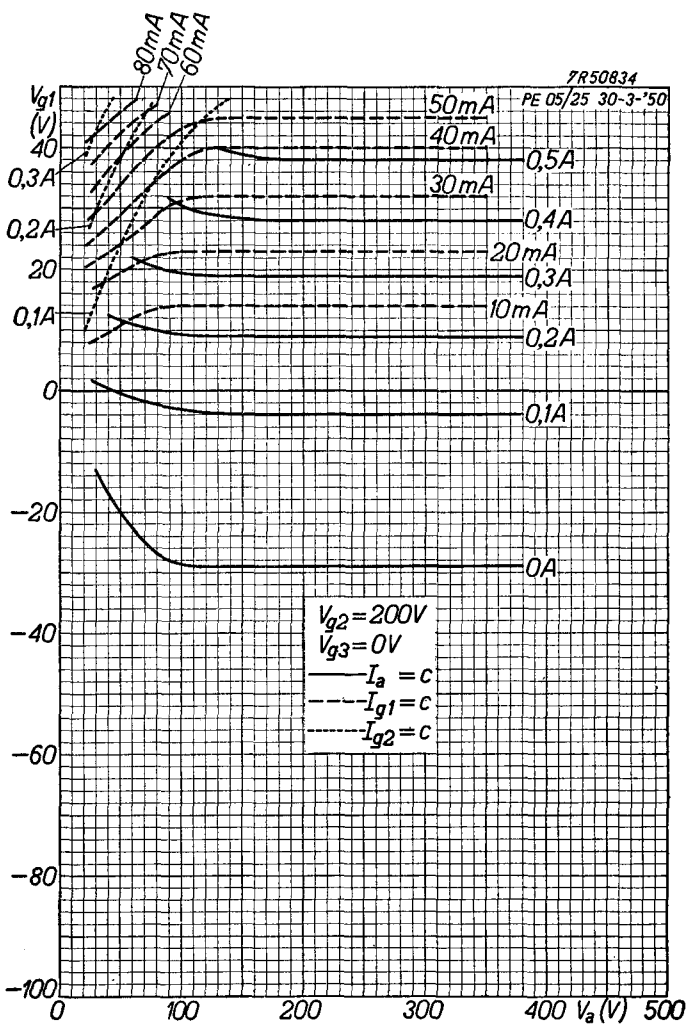


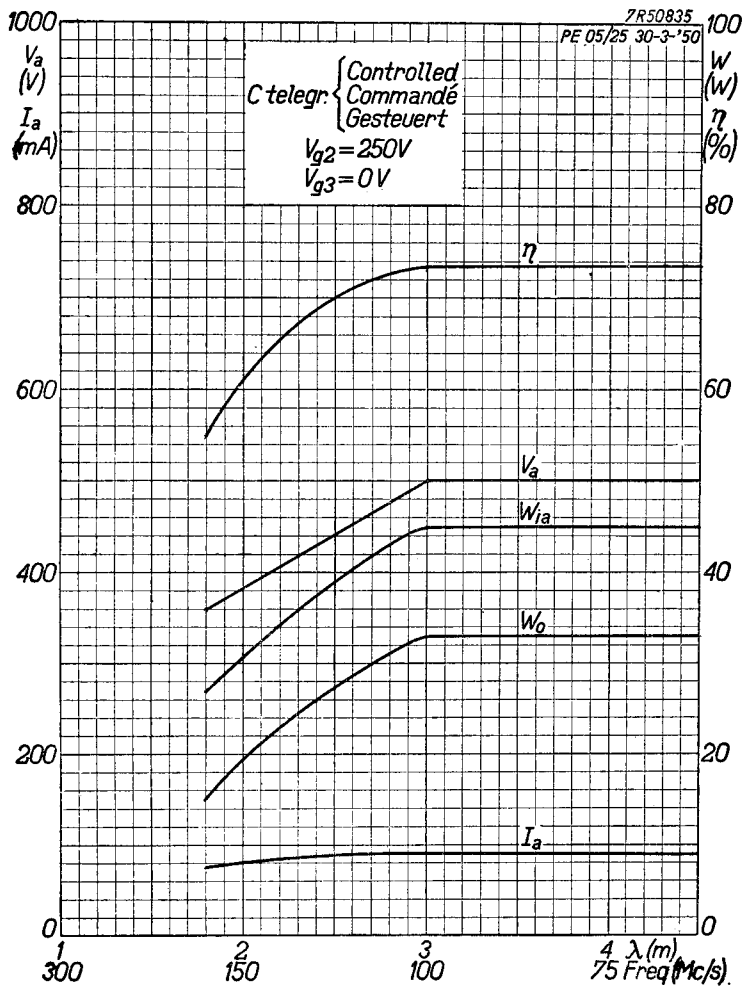
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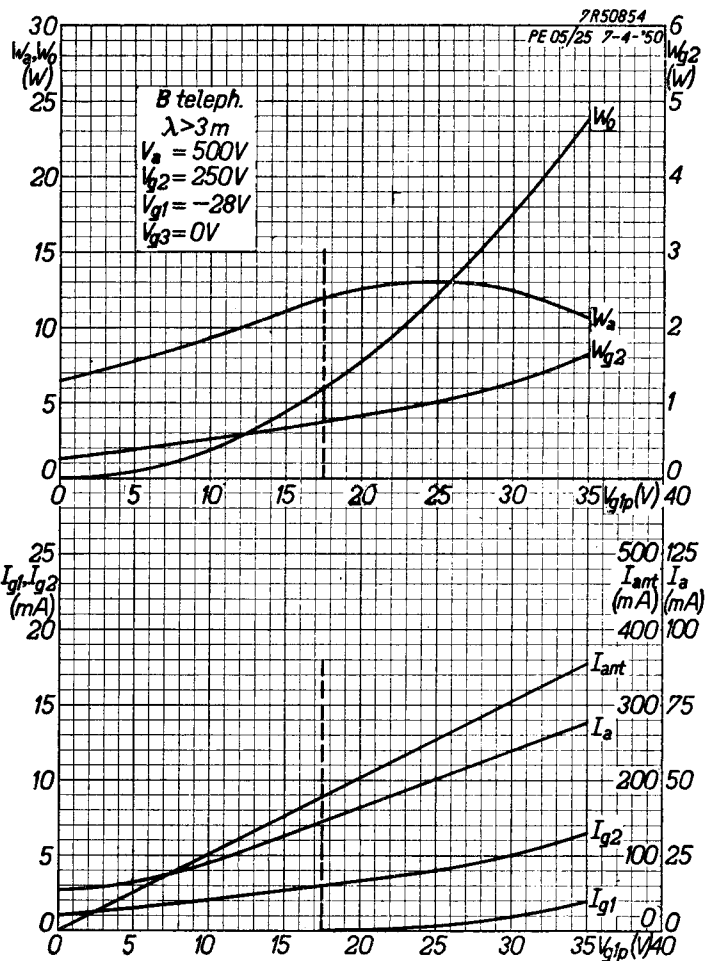
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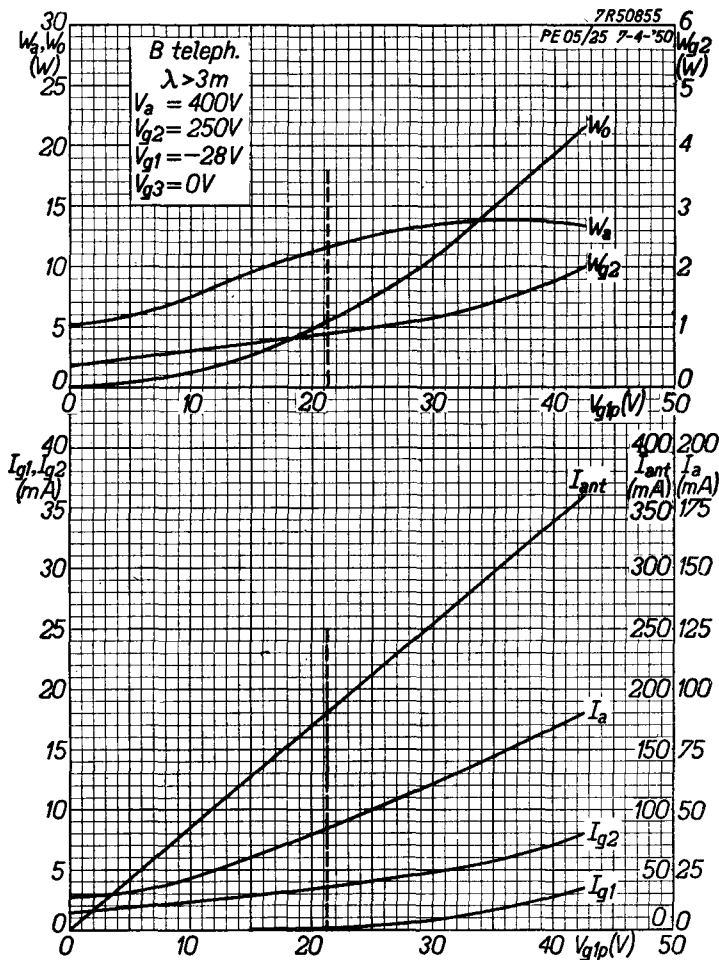












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B mod.

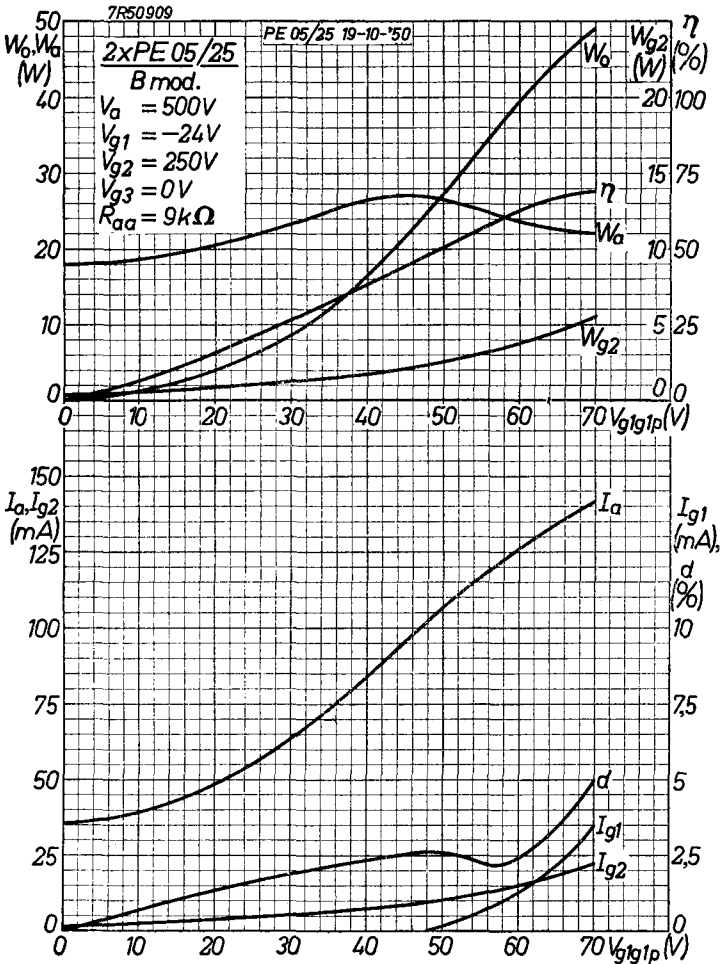
$V_a = 500V$

$V_{g1} = -24V$

$V_{g2} = 250V$

$V_{g3} = 0V$

$R_{aa} = 9k\Omega$

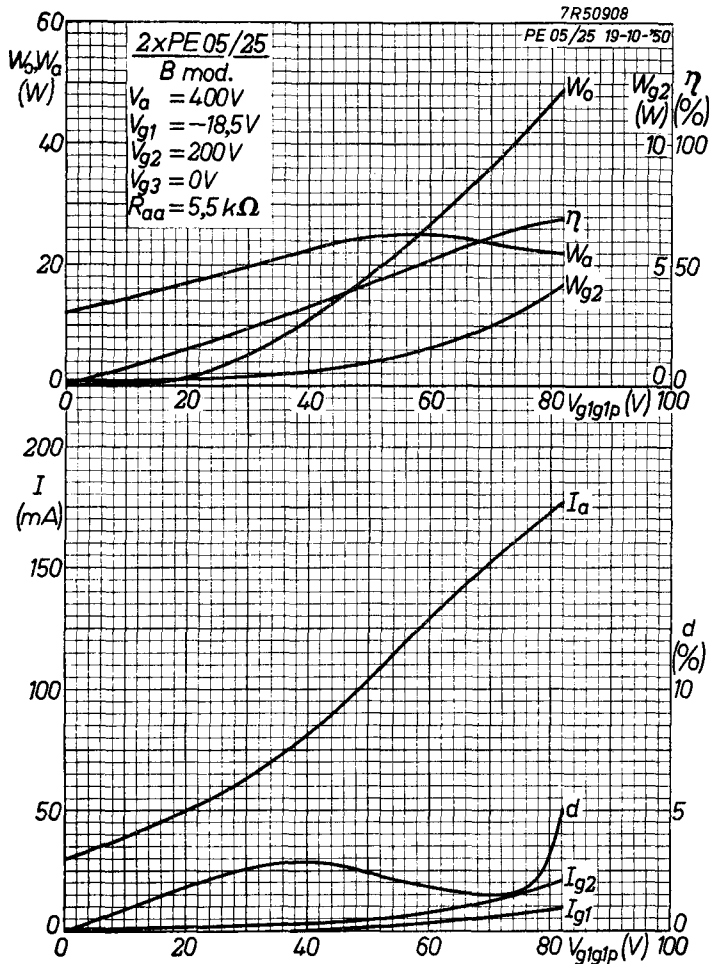


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2xPE 05/25

B mod.

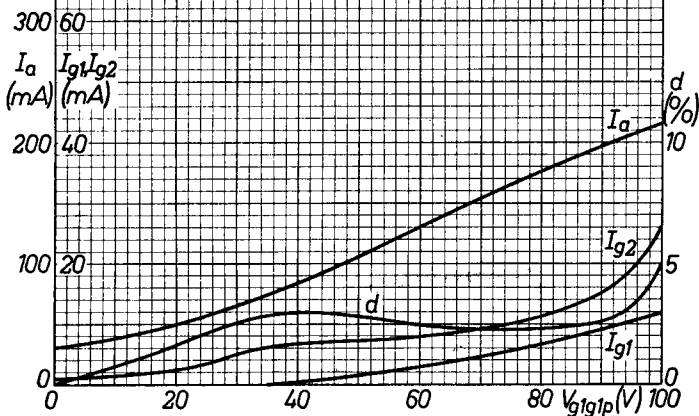
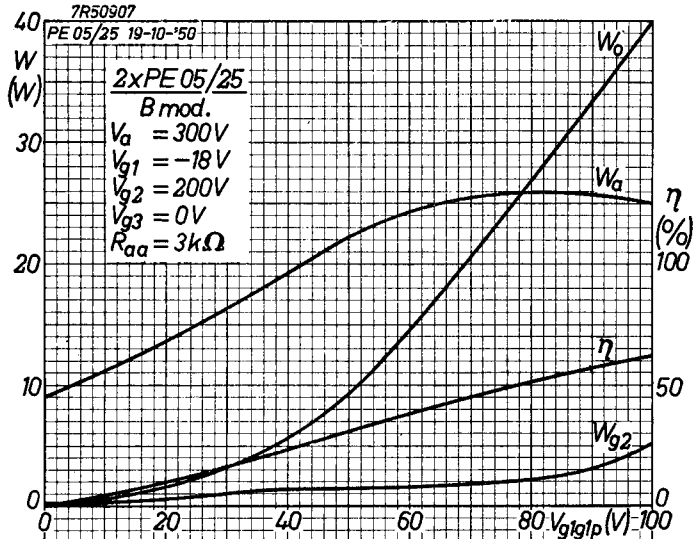
$V_a = 300V$

$V_{g1} = -18V$

$V_{g2} = 200V$

$V_{g3} = 0V$

$R_{aa} = 3k\Omega$



K



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1	1	1954.07.07
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3	3	1950.03.03
4	4	1950.03.03
5	5	1954.07.07
6	A	1954.07.07
7	B	1954.07.07
8	C	1954.07.07
9	D	1954.07.07
10	E	1954.07.07
11	F	1954.07.07
12	G	1954.07.07
13	H	1954.07.07
14	I	1954.07.07
15	J	1954.07.07
16	K	1954.07.07
17	FP	2000.05.05