

PENTODE for use as H.F. amplifier and oscillator
 PENTHODE pour utilisation en amplificatrice H.F. et oscillatrice
 PENTODE zur Verwendung als H.F. Verstärker und Oszillator

Filament : thoriated tungsten
 Filament : tungstène thorié
 Heizfaden : thoriertes Wolfram

Heating : direct
 Chauffage : direct
 Heizung : direkt

$V_f = 12 \text{ V}$
 $I_f = 8,5 \text{ A}$

Capacitances
 Capacités
 Kapazitäten

$C_a = 21 \text{ pF}$
 $C_{g1} = 29 \text{ pF}$
 $C_{ag1} = 0,05 \text{ pF}$

Typical characteristics
 Caractéristiques types
 Kenndaten

$\mu_{g2g1} = 3,5$
 $S (I_a = 225 \text{ mA}) = 6,5 \text{ mA/V}$

Freq.		C telegr.		B teleph.	
m	Mc/s	V_a (V)	W_o (W)	V_a (V)	W_o (W)
>30	<10	3000	1200	3000	190
>15	<20	2500	950	2500	130
5	60	1800	485	1800	68
		C _{ag2} mod.		C _{g3} mod.	
>30	<10	2500	580	3000	200
>15	<20	2000	425	2500	150

B mod. ¹⁾	
V_a (V)	W_o (W)
3000	1600

Limiting values
 Caractéristiques limites
 Grenzdaten

$V_a = \text{max. } 3000 \text{ V}$ $R_{g3} = \text{max. } 30 \text{ k}\Omega$
 $W_a = \text{max. } 450 \text{ W}$ $W_{g1} = \text{max. } 20 \text{ W}$
 $V_{g2} = \text{max. } 600 \text{ V}$ $R_{g1} = \text{max. } 30 \text{ k}\Omega$
 $V_{g2}(\text{B mod.}) = \text{max. } 750 \text{ V}$ $I_k = \text{max. } 700 \text{ mA}$
 $W_{g2} = \text{max. } 100 \text{ W}$ $I_{kp} = \text{max. } 4500 \text{ mA}$

temperature of pin seals a and g₃
 temp. des points de scellement
 des broches a et g₃ } = max. 200 °C
 Temp. der Verschlüsse a und g₃

¹⁾ Two tubes, deux tubes, zwei Röhren.

To insure safe seal temperatures a low velocity air flow is required above 60 Mc/s

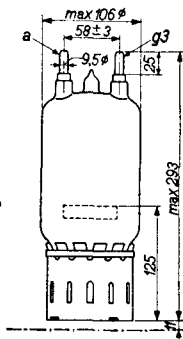
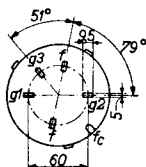
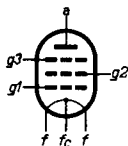
Un courant d'air à vitesse peu élevée est nécessaire aux fréquences dépassant 60 Mc/s pour assurer une température assez basse aux points de scellement

Bei Frequenzen höher als 60 MHz ist ein schwacher Luftstrom notwendig, damit die Temperatur der Stiftenverschlüsse die höchstzulässige Temperatur nicht überschreitet.

Dimensions in mm

Dimensions en mm

Abmessungen in mm



Socket

Support

Fassung

40201

Clips

Bornes de connexion

Anschlussklemmen

40626

Mounting position: vertical with base up¹⁾ or down

Montage : vertical avec culot en haut¹⁾ ou en bas

Einbau : senkrecht mit Sockel oben¹⁾ oder unten

Net weight

Poids net

Nettogewicht

0,78 kg

Shipping weight

Poids brut

Bruttogewicht

2,5 kg

¹⁾ In that case it is recommended to support the tube

Dans ce cas il est recommandé de supporter le tube
In diesem Fall empfiehlt es sich die Röhre zu stützen

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

Betriebsdaten H.F. Klasse C Telegraphie

$$V_{g2} = V_{g3}$$

λ	=	>30	>15	5 ¹⁾	m
Va	=	3000	2500	1800	V
Vg1	=	-200	-200	-150	V
Vg2=Vg3	=	300	300	300	V
Ia	=	550	550	985	mA
Ig1	=	25	20	30	mA
Ig2+g3	=	100	100	200	mA
Vg1p	=	370	360	300	V
Wig1	=	9	7	9	W
Wg2+g3	=	30	30	60	W
Wia	=	1650	1375	1775	W
Wa	=	450	425	800	W
Wo	=	1200	950	975	W
η	=	72,5	69	55	%

$$V_{g3} = 0$$

λ	=	>30	>15	5 ¹⁾	m
Va	=	3000	2500	1800	V
Vg1	=	-300	-300	-200	V
Vg2	=	500	500	500	V
Vg3	=	0	0	0	V
Ia	=	465	470	945	mA
Ig1	=	20	20	30	mA
Ig2	=	200	200	320	mA
Vg1p	=	450	450	350	V
Wig1	=	9	9	11	W
Wg2	=	100	100	160	W
Wia	=	1400	1175	1700	W
Wa	=	450	450	800	W
Wo	=	950	725	900	W
η	=	68	61,5	53	%

¹⁾ Two valves; deux tubes; zwei Röhren

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

λ	=	>30	>15	5 ¹⁾	m
Va	=	3000	2500	1800	V
Vg1	=	-120	-115	-90	V
Vg2	=	500	500	420	V
Vg3	=	0	0	0	V
Ia	=	215	230	350	mA
Ig2	=	30	30	50	mA
Vg1p	=	80	75	60	V
Wg2	=	15	15	21	W
Wia	=	640	580	630	W
Wa	=	450	450	495	W
Wo	=	190	130	135	W
η	=	30	22	21	%
m	=	100	100	100	%
Ig1	=	4	3	6	mA
Wig1	=	0,7	0,5	0,8	W

¹⁾ Two valves; deux tubes; zwei Röhren

Operating conditions H.F. class C
 Caractéristiques d'utilisation H.F. classe C
 Betriebsdaten H.F. Klasse C

anode- and screen grid modulation modulation d'anode et de grille-écran Anoden- und Schirm- gittermodulation	suppressor grid modulation modulation de grille d'arrêt Fanggittermodulation
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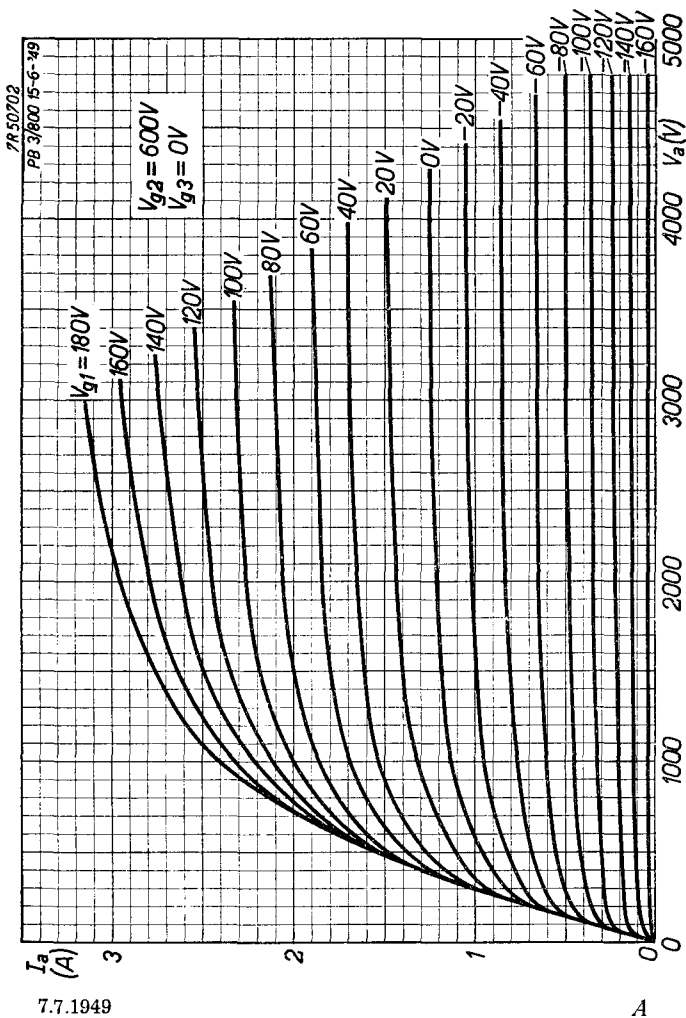
λ	=	>30	>15	>30	>15	>30	>15	m
Va	=	2500	2000	3000	2500	3000	2500	V
Vg1	=	-300	-300	-300	-300	-300	-300	V
Vg2	=	500	500	600	600	600	600	V
Vg3	=	0	0	-190	-170	-210	-200	V
Ia	=	325	315	190	165	175	175	mA
Ig1	=	7	7	5	5	5	5	mA
Ig2	=	135	135	165	165	165	165	mA
Vg1p	=	385	385	335	335	335	335	V
Wig1	=	2,7	2,7	1,7	1,7	1,7	1,7	W
Wg2	=	67	67	100	100	100	100	W
Wia	=	815	630	570	415	525	425	W
Wa	=	235	205	370	265	360	325	W
Wo	=	580	425	200	150	165	100	W
η	=	71	67,5	35	36	31	23,5	%
m	=	100	100	80	80	100	100	%
Vg2p	=	500	500					V
Vg3p	=			190	170	210	200	V
Wmod	=	440	350	0	0	0	0	W

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

Caractéristiques d'utilisation comme amplificatrice et modulatrice B.F. classe B, deux tubes

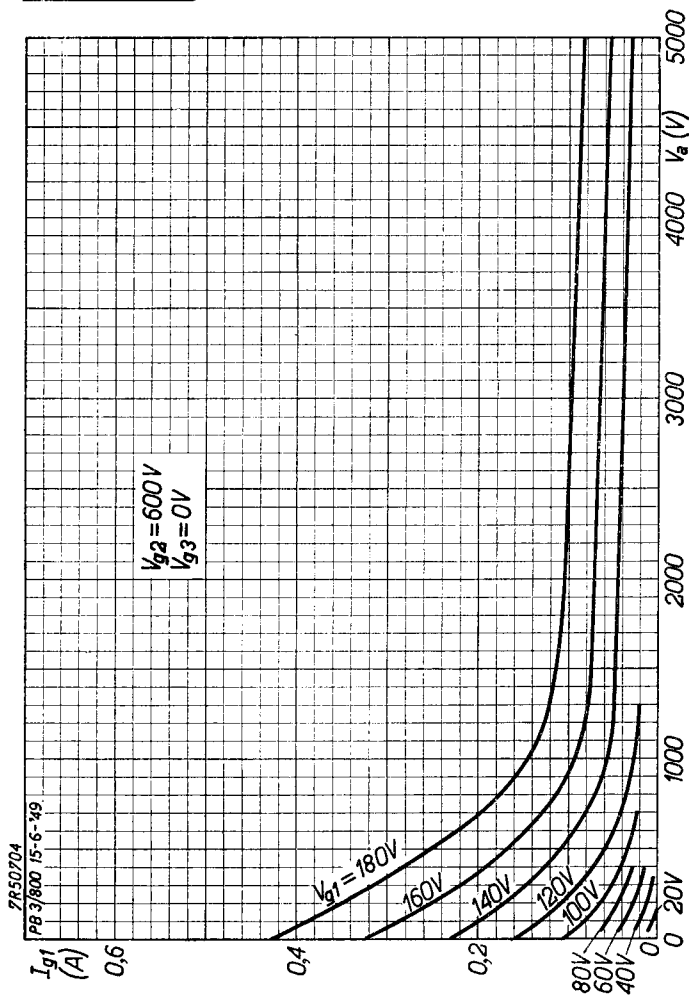
Betriebsdaten als N.F. Verstärker und Modulator Klasse B, zwei Röhren

V_a	=	3000	V
V_{g1}	=	-160	V
V_{g2}	=	600	V
V_{g3}	=	0	V
R_{aa}	=	8,8	k Ω
V_{g1g1p}	=	0	360 V
I_a	=	2x50	2x385 mA
I_{g1}	=	0	2x6 mA
I_{g2}	=	2x8	2x105 mA
W_{ig1}	=	0	2x1,1 W
W_{g2}	=	2x4,8	2x63 W
W_{ia}	=	2x150	2x1155 W
W_a	=	2x150	2x355 W
W_o	=	0	1600 W
η	=	-	69 %

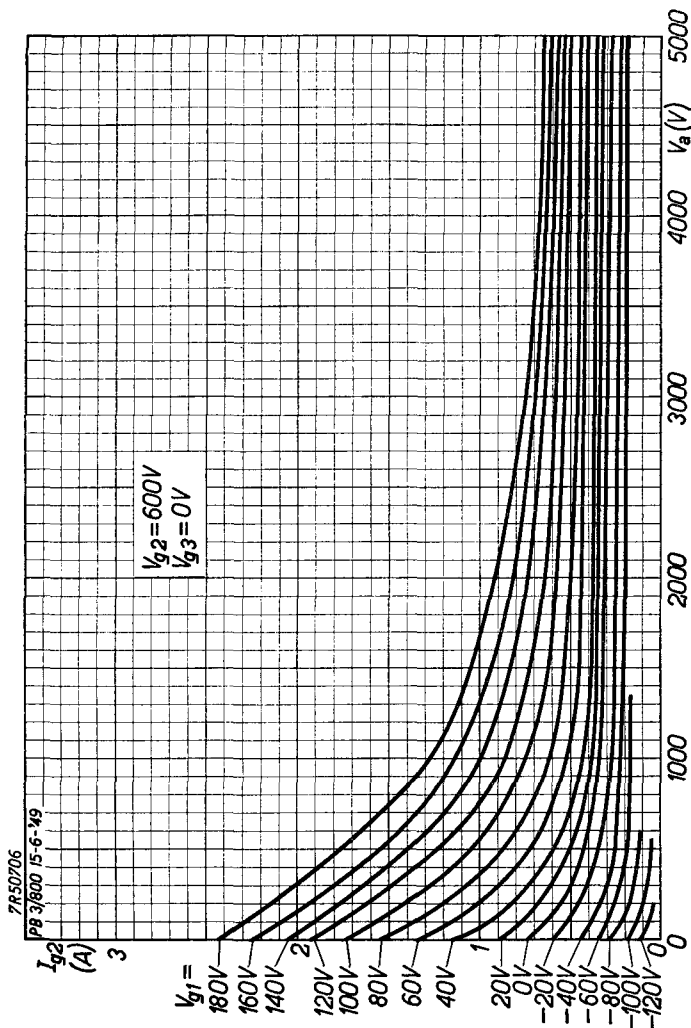


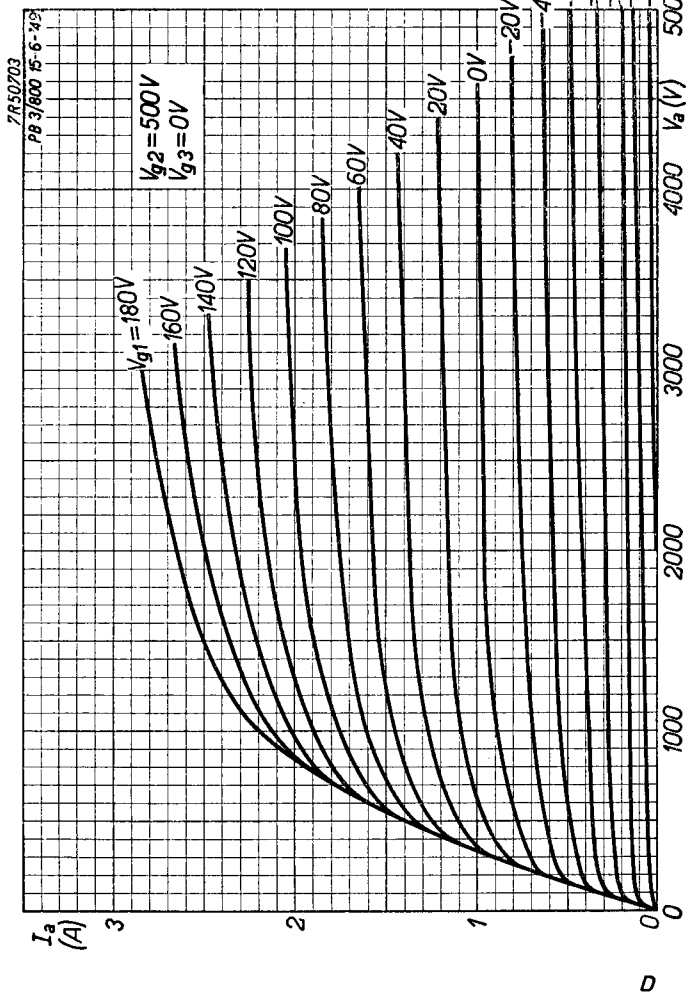
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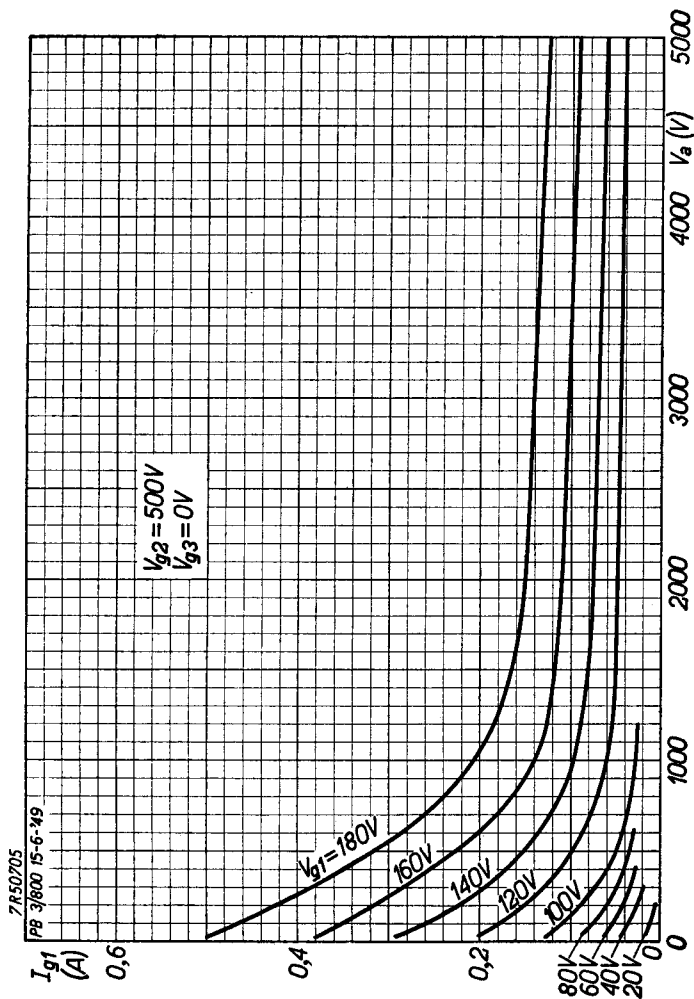
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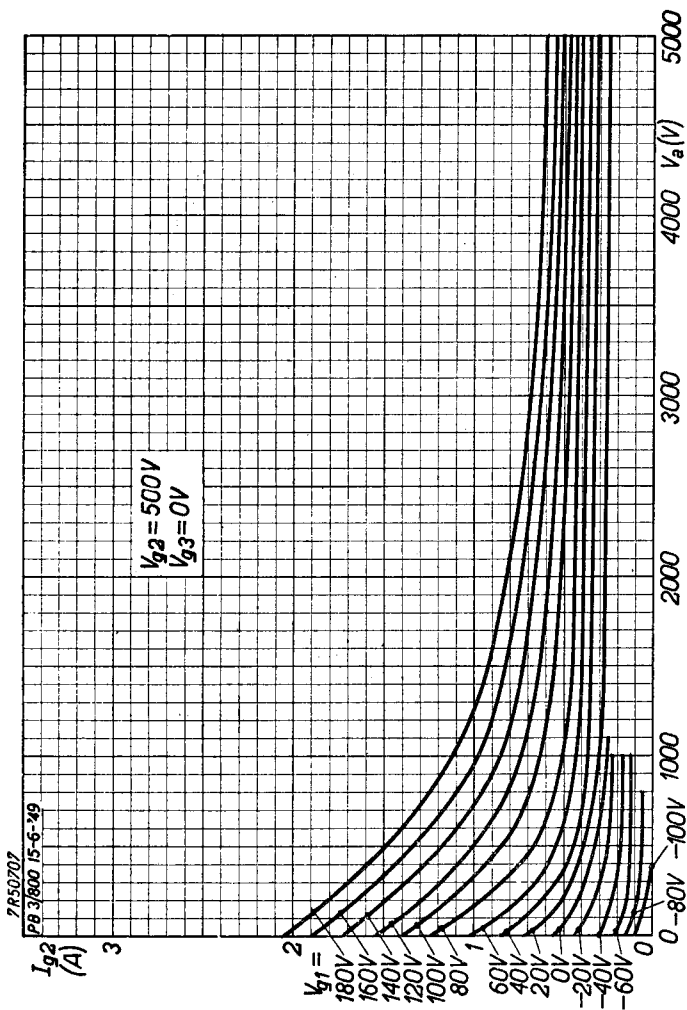






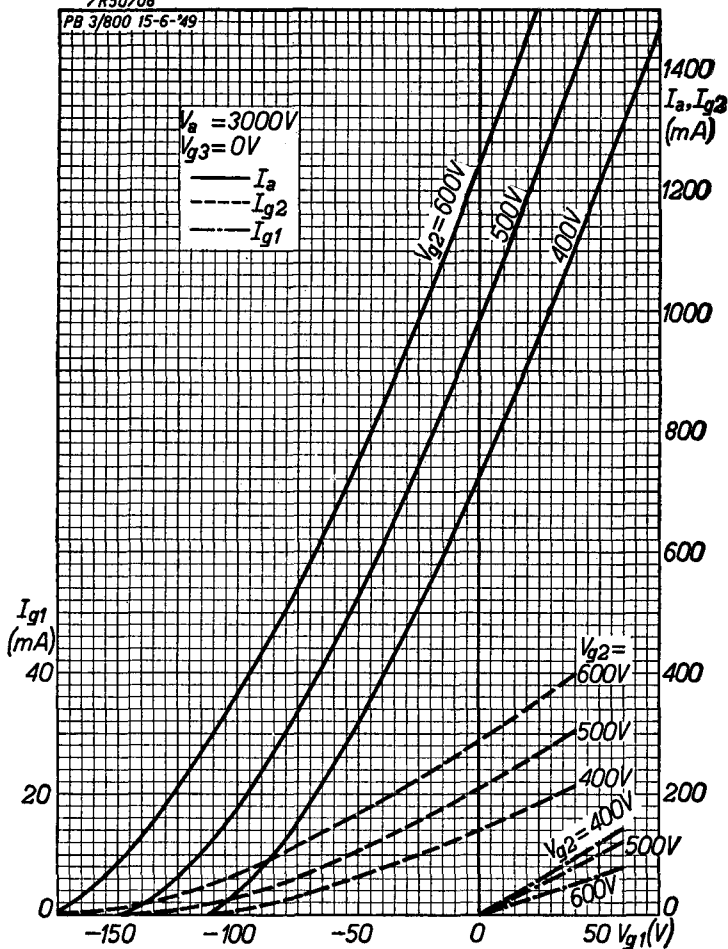
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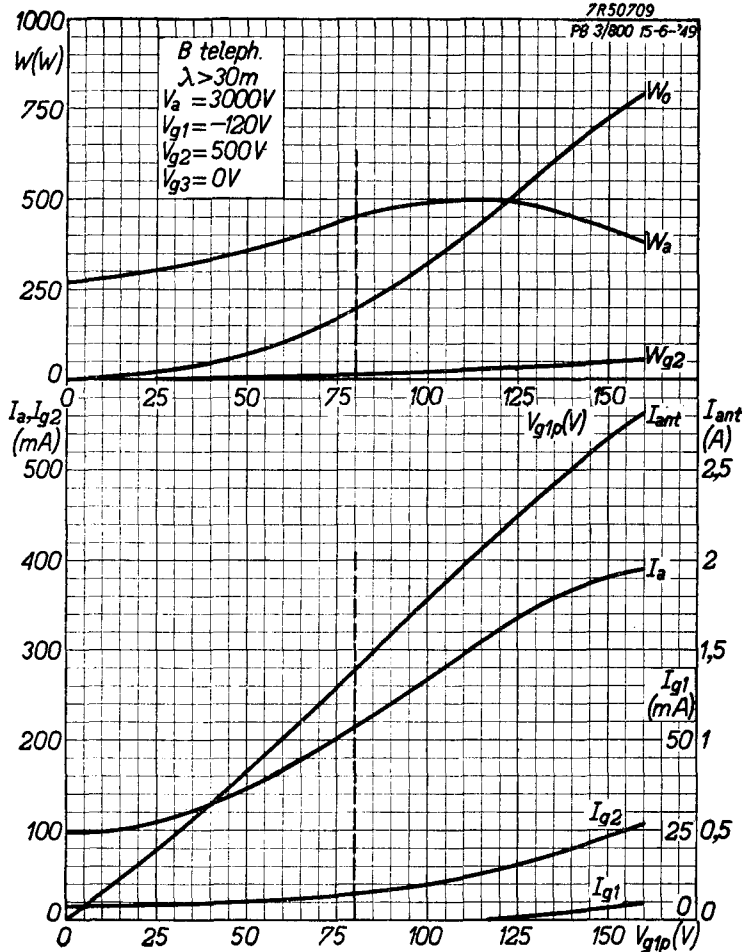


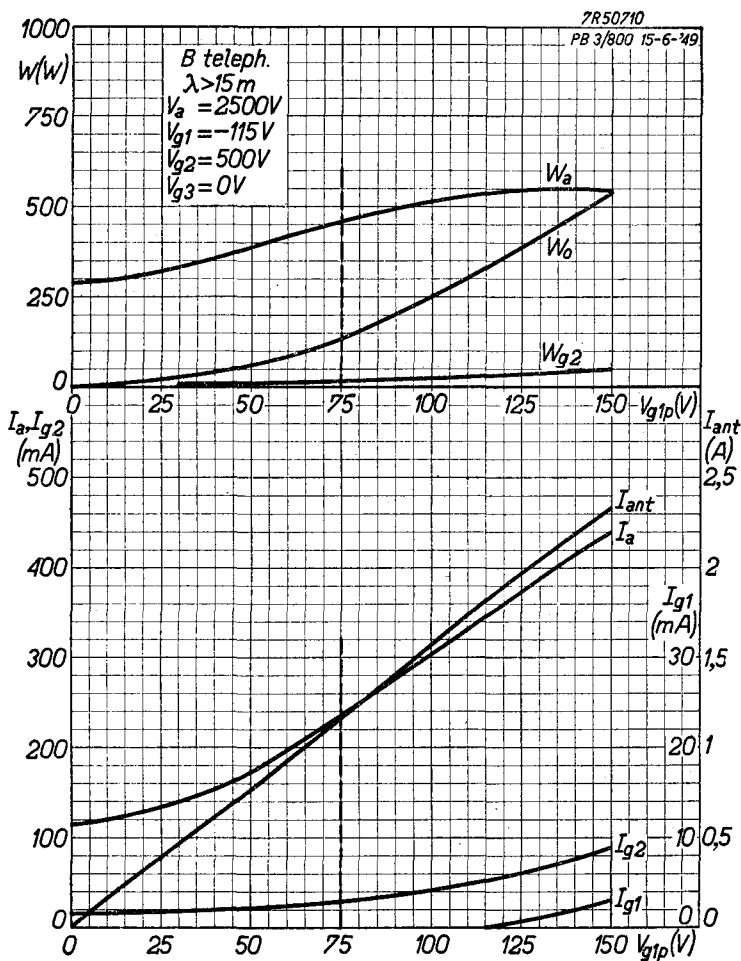
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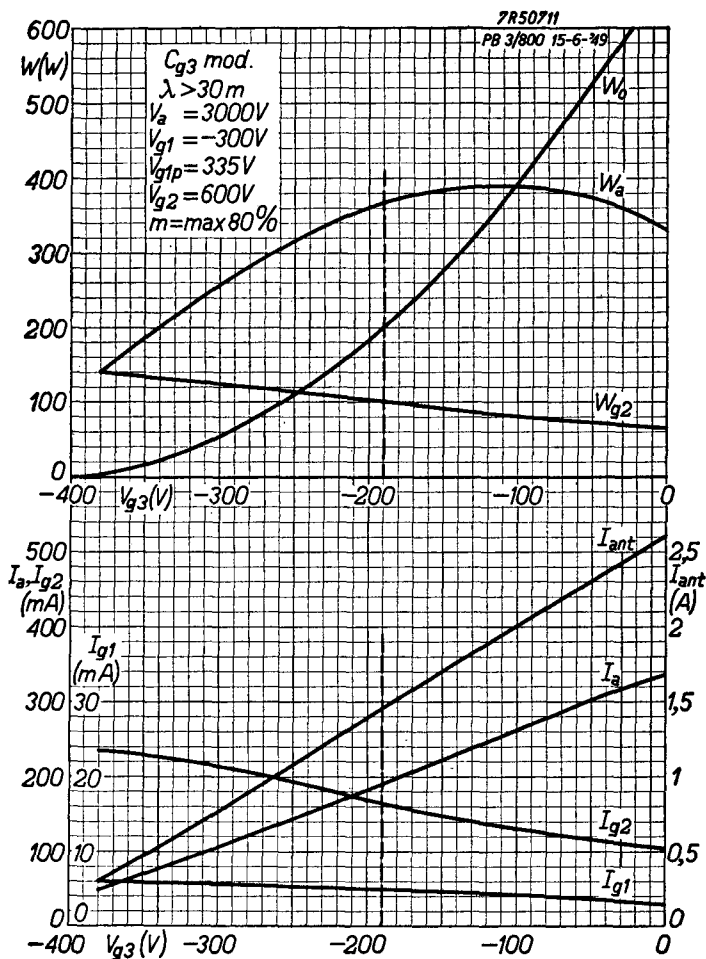
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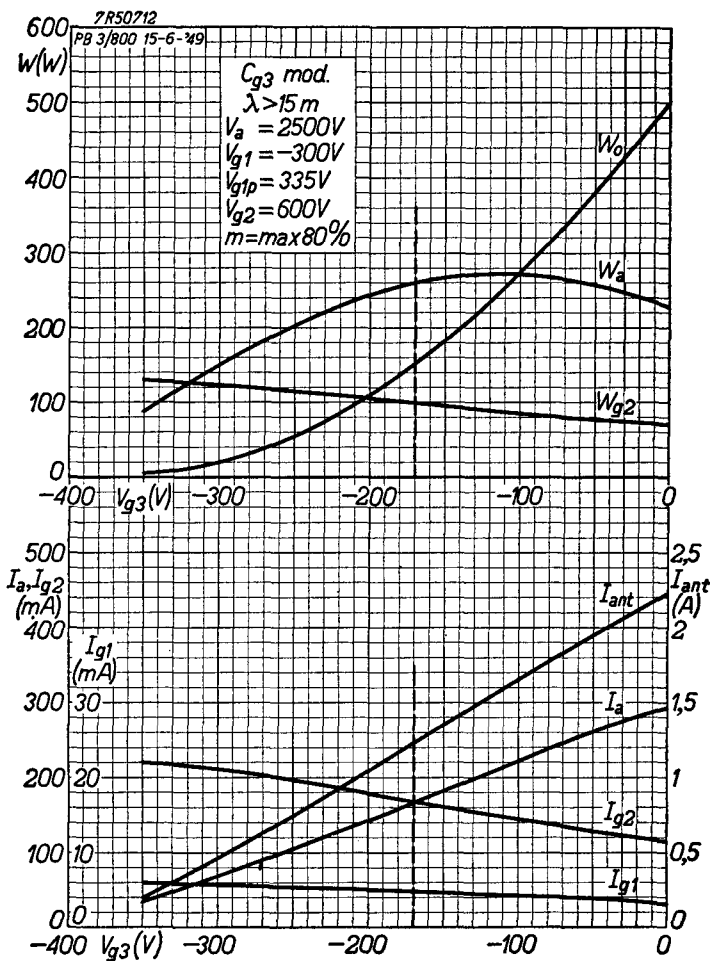
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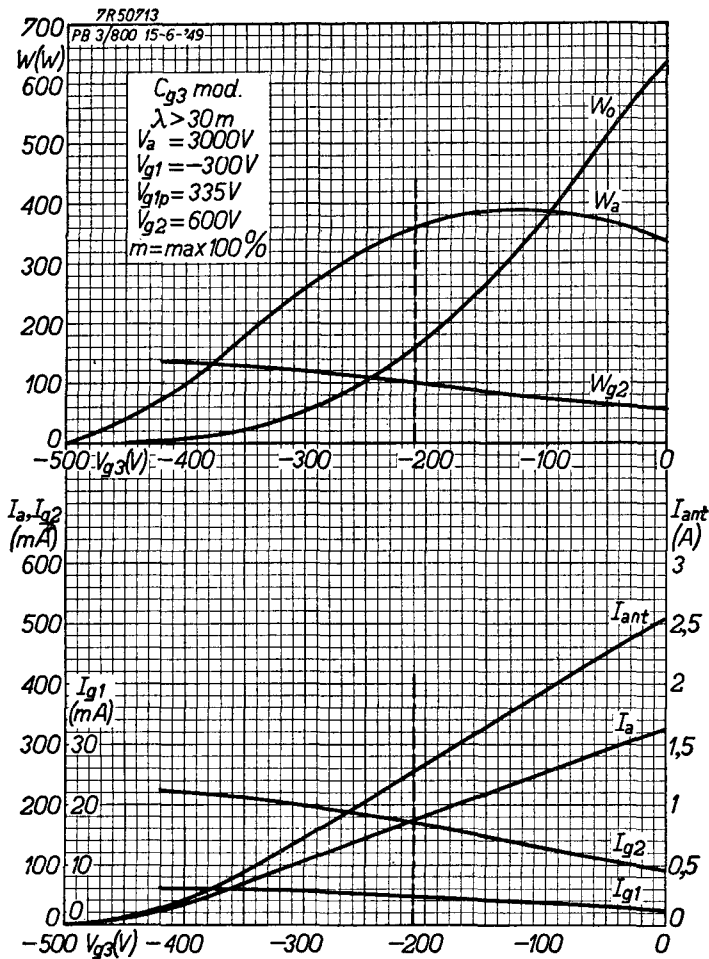


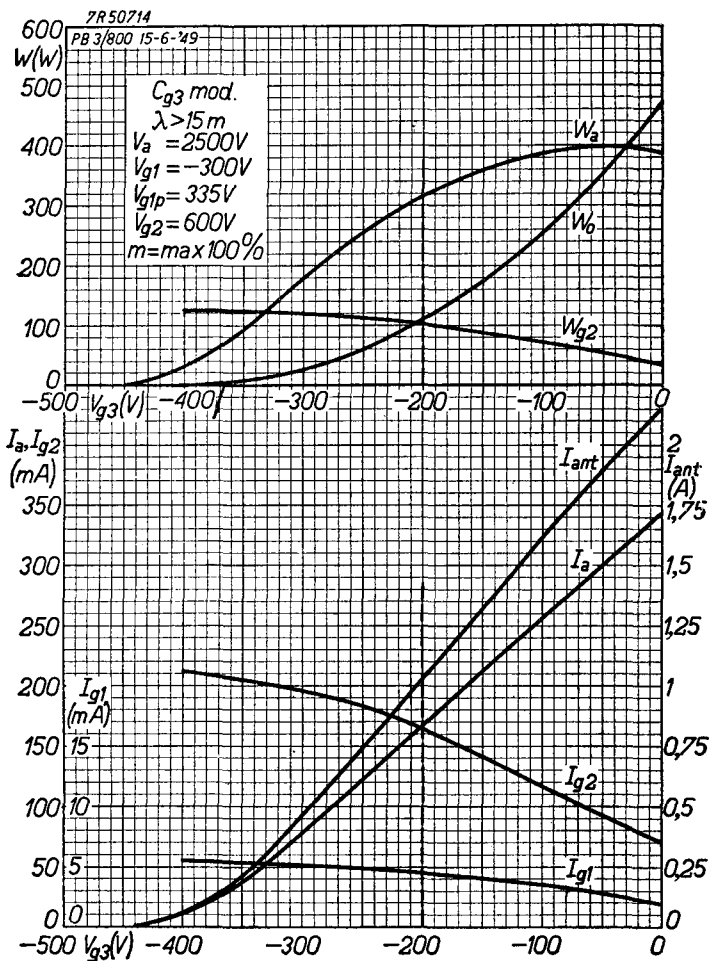


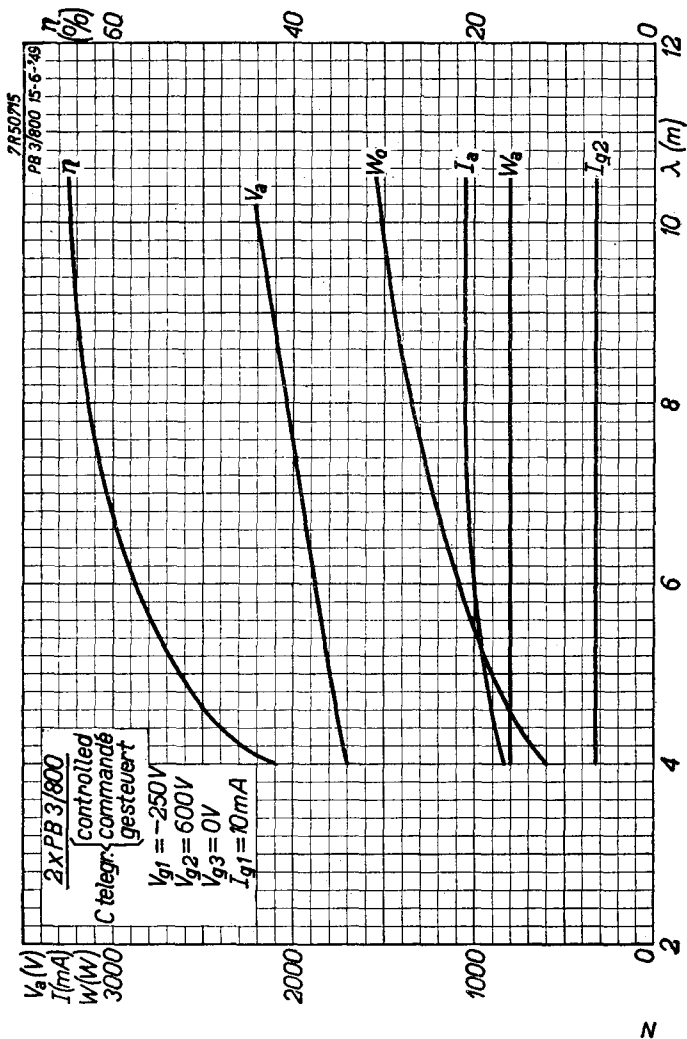
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$C_{g3} \text{ mod.}$
 $\lambda > 30 \text{ m}$
 $V_a = 3000 \text{ V}$
 $V_{g1} = -300 \text{ V}$
 $V_{g1p} = 335 \text{ V}$
 $V_{g2} = 600 \text{ V}$
 $m = \text{max } 100 \%$









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page	sheet	date
1	1	1954.07.07
2	2	1954.07.07
3	3	1949.04.05
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5	5	1950.02.02
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9	C	1954.07.07
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12	F	1954.07.07
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