

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  $V_f = 12 \text{ V}$   
 Chauffage : direct  $I_f = 8,5 \text{ A}$   
 Heizung : direkt

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

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

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 <sub>g2</sub> mod.		C <sub>g3</sub> mod.	
>30	<10	2500	580	3000	200
>15	<20	2000	425	2500	150

B mod. <sup>1)</sup>	
$V_a$ (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 g<sub>3</sub>  
 temp. des points de scellement  
 des broches a et g<sub>3</sub>  
 Temp. der Verschlüsse a und g<sub>3</sub>) = max. 200 °C

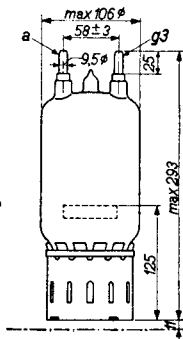
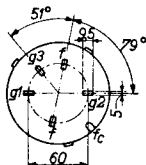
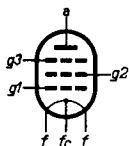
<sup>1)</sup> Two tubes, deux tubes, zwei Röhren.

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

Un courant d'air à vélocité 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 40626  
Anschlussklemmen

Mounting position: vertical with base up<sup>1)</sup> or down  
Montage : vertical avec culot en haut<sup>1)</sup> ou en bas  
Einbau : senkrecht mit Sockel oben<sup>1)</sup> oder unten

Net weight  
Poids net 0,78 kg  
Nettogewicht  
Shipping weight  
Poids brut 2,5 kg  
Bruttogewicht

<sup>1)</sup> 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

Vg2 = Vg3

$\lambda$	=	>30	>15	5 <sup>1)</sup>	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
$\eta$	=	72,5	69	55	%

Vg3 = 0

$\lambda$	=	>30	>15	5 <sup>1)</sup>	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
$\eta$	=	68	61,5	53	%

<sup>1)</sup> 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

$\lambda$	=	>30	>15	5 <sup>1)</sup>	m
V <sub>a</sub>	=	3000	2500	1800	V
V <sub>g1</sub>	=	-120	-115	-90	V
V <sub>g2</sub>	=	500	500	420	V
V <sub>g3</sub>	=	0	0	0	V
I <sub>a</sub>	=	215	230	350	mA
I <sub>g2</sub>	=	30	30	50	mA
V <sub>g1p</sub>	=	80	75	60	V
W <sub>g2</sub>	=	15	15	21	W
W <sub>ia</sub>	=	640	580	630	W
W <sub>a</sub>	=	450	450	495	W
W <sub>o</sub>	=	190	130	135	W
$\eta$	=	30	22	21	%
-----					
m	=	100	100	100	%
I <sub>g1</sub>	=	4	3	6	mA
W <sub>ig1</sub>	=	0,7	0,5	0,8	W

<sup>1)</sup> Two valves; deux tubes; zwei Röhren

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

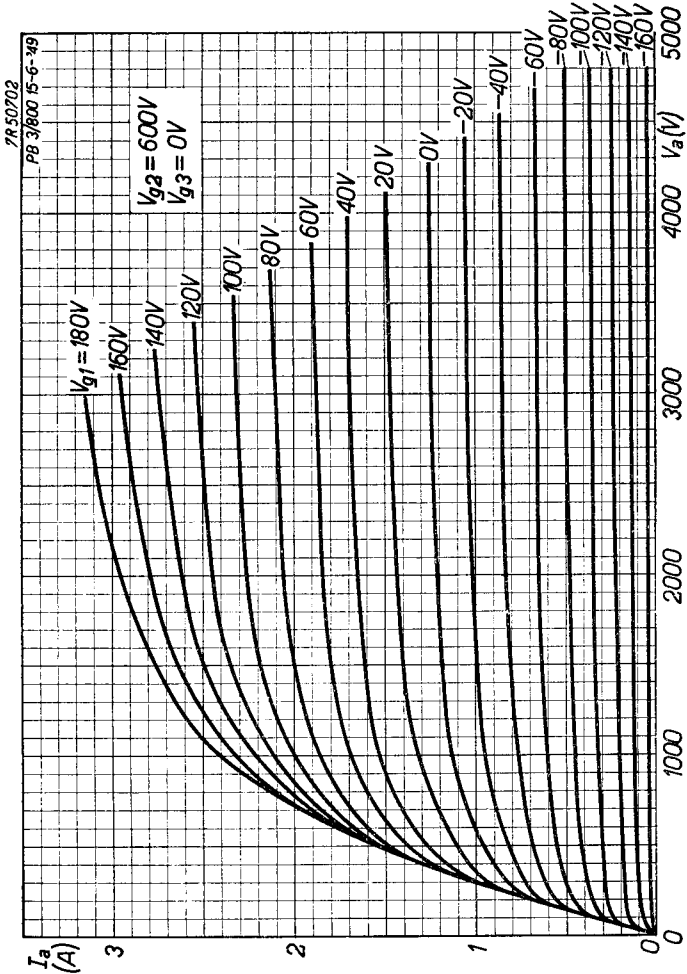
anode- and screen grid modulation modulation d'anode et de grille-écran Anoden- und Schirm- gittermodulation		suppressor grid modulation modulation de grille d'arrêt Fanggittermodulation						
$\lambda$	= >30 >15	>30	>15	>30	>15	>30	>15	m
$V_a$	= 2500 2000	3000	2500	3000	2500	3000	2500	V
$V_{g1}$	= -300 -300	-300	-300	-300	-300	-300	-300	V
$V_{g2}$	= 500 500	600	600	600	600	600	600	V
$V_{g3}$	= 0 0	-190	-170	-210	-200	-210	-200	V
$I_a$	= 325 315	190	165	175	175	175	175	mA
$I_{g1}$	= 7 7	5	5	5	5	5	5	mA
$I_{g2}$	= 135 135	165	165	165	165	165	165	mA
$V_{g1p}$	= 385 385	335	335	335	335	335	335	V
$W_{g1}$	= 2,7 2,7	1,7	1,7	1,7	1,7	1,7	1,7	W
$W_{g2}$	= 67 67	100	100	100	100	100	100	W
$W_{ia}$	= 815 630	570	415	525	425	525	425	W
$W_a$	= 235 205	370	265	360	325	360	325	W
$W_o$	= 580 425	200	150	165	100	165	100	W
$\eta$	= 71 67,5	35	36	31	23,5	31	23,5	%
$m$	= 100 100	80	80	100	100	100	100	%
$V_{g2p}$	= 500 500							V
$V_{g3p}$	=	190	170	210	200	210	200	V
$W_{mod}$	= 440 350	0	0	0	0	0	0	W

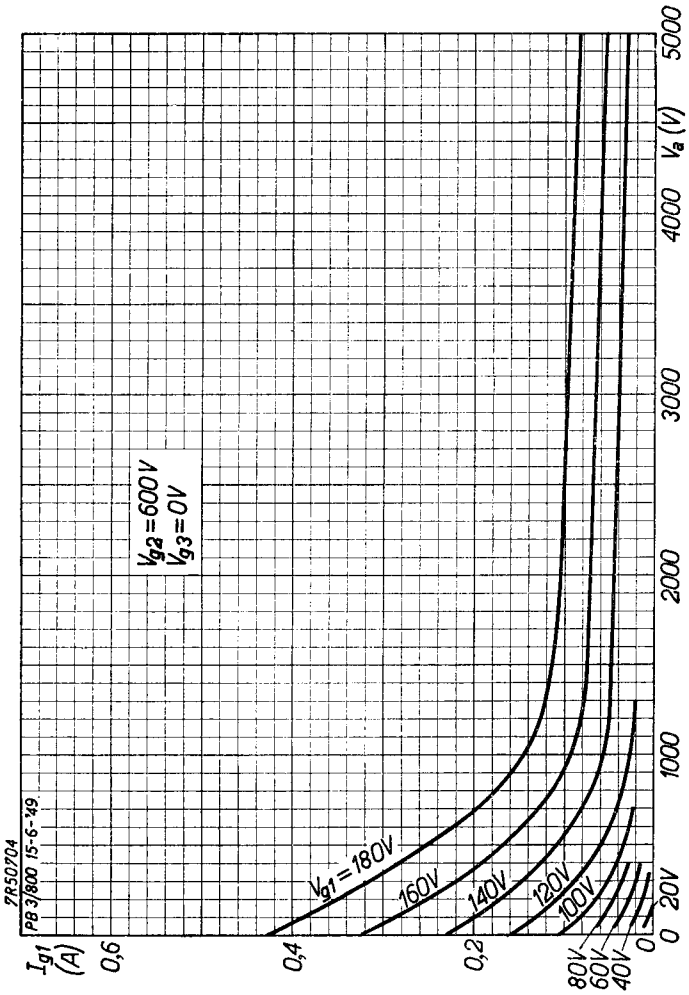
Operating conditions as L.F. class B amplifier and modulator, two valves

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

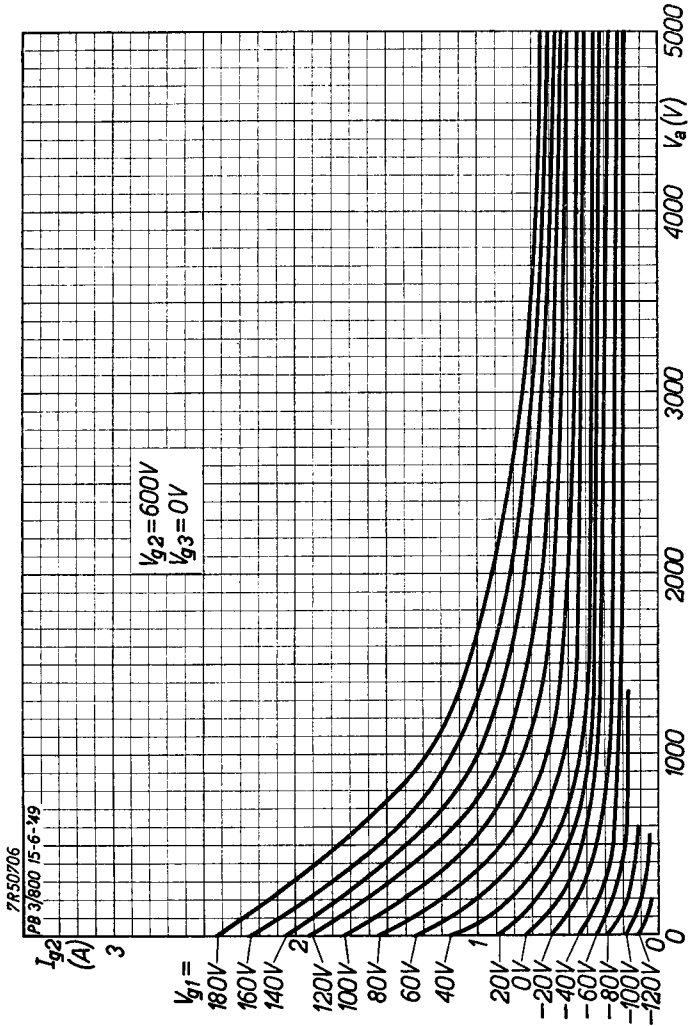
Betriebsdaten als N.F. Verstärker und Modulator Klasse B, zwei Röhren

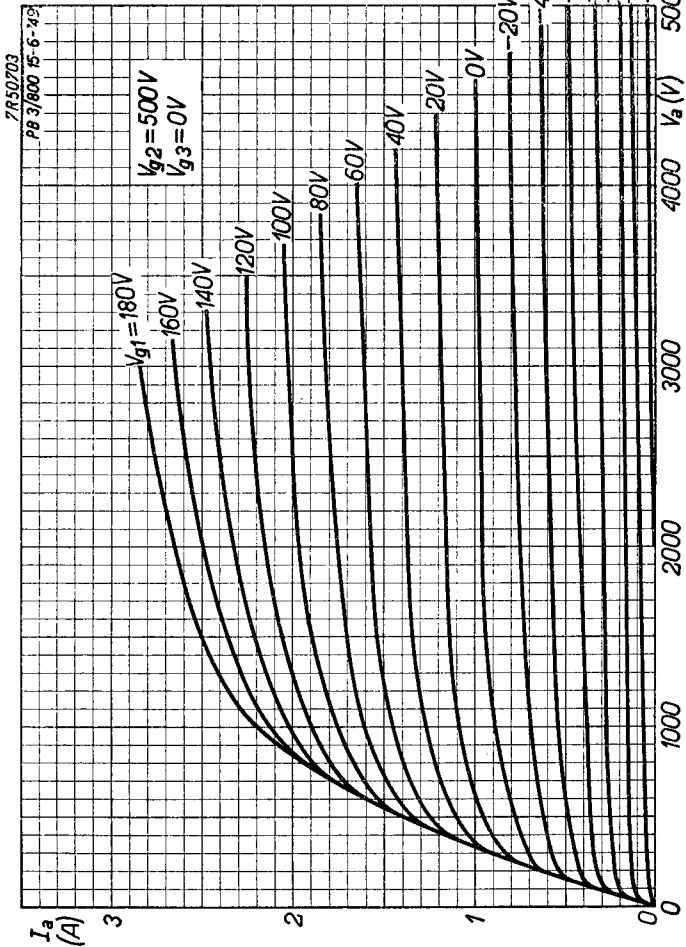
$V_a$	=	3000	V
$V_{g1}$	=	-160	V
$V_{g2}$	=	600	V
$V_{g3}$	=	0	V
$R_{aa}$	=	8,8	k $\Omega$
$V_{g1g1p}$	=	0	360 V
$I_a$	=	2x50	2x385 mA
$I_{g1}$	=	0	2x6 mA
$I_{g2}$	=	2x8	2x105 mA
$W_{ig1}$	=	0	2x1,1 W
$W_{g2}$	=	2x4,8	2x63 W
$W_{ia}$	=	2x150	2x1155 W
$W_a$	=	2x150	2x355 W
$W_o$	=	0	1600 W
$\eta$	=	-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



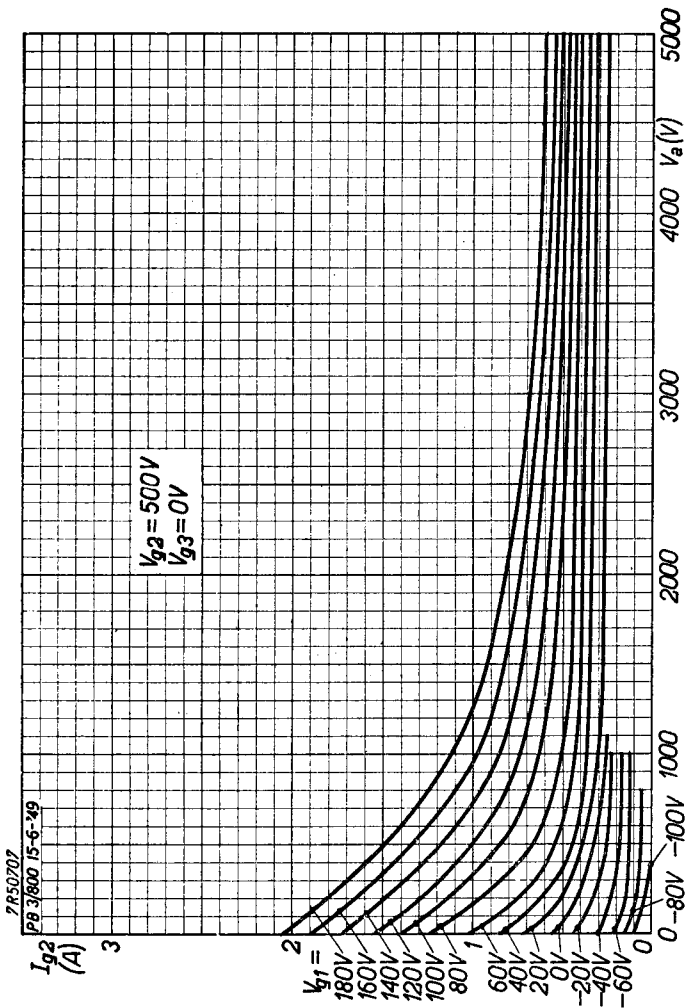






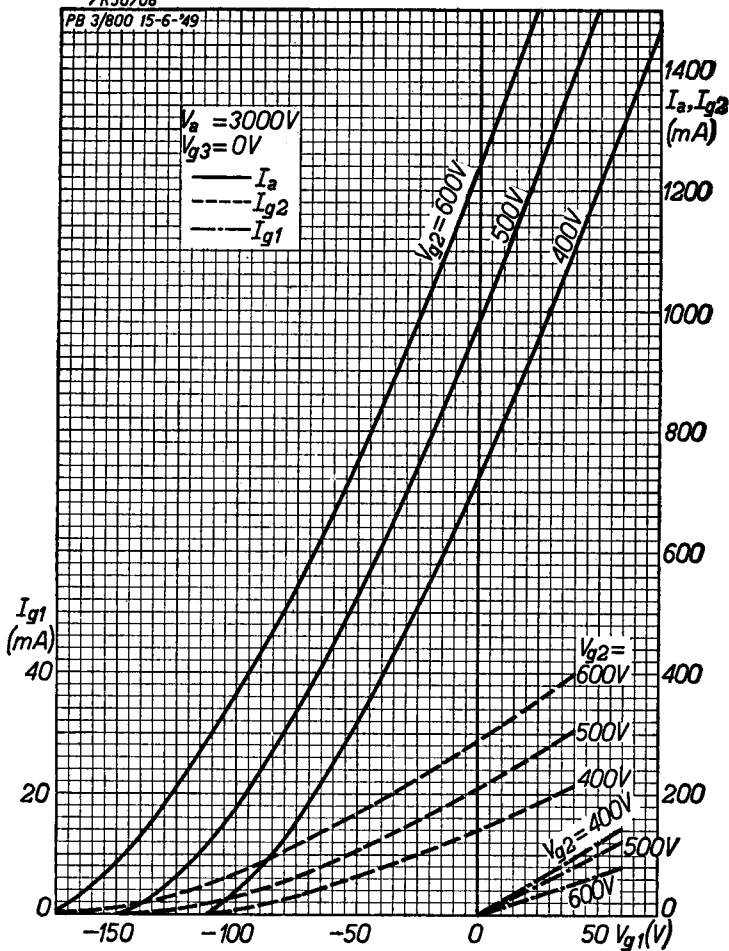






7R50708

PB 3/800 15-6-'49

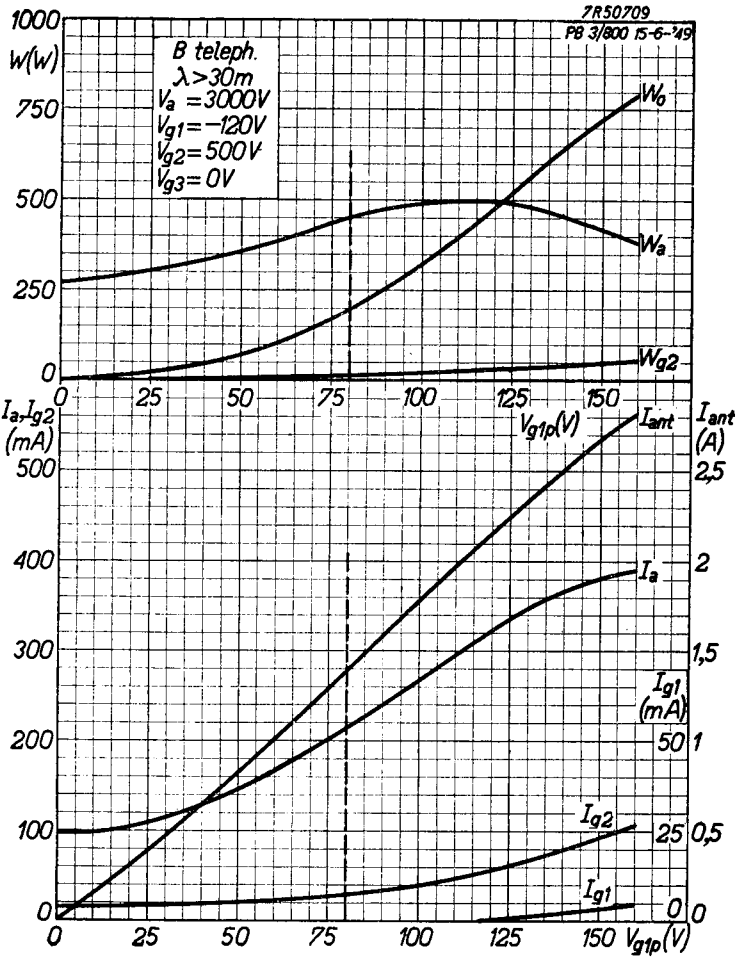


**PB 3/800**

**PHILIPS**

7R50709

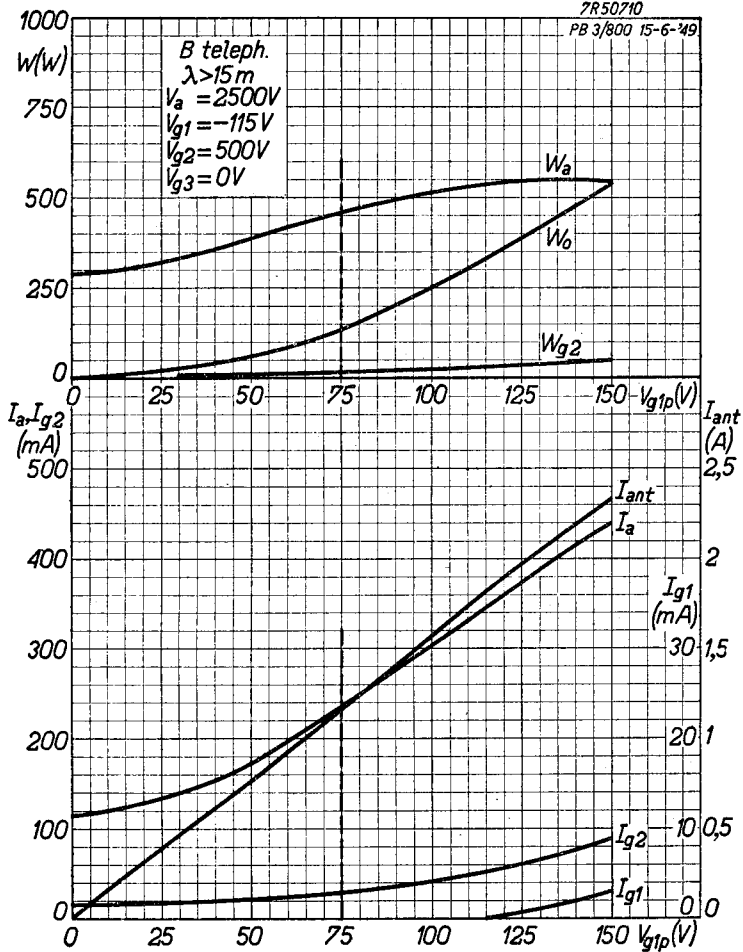
PB 3/800 15-6-'49

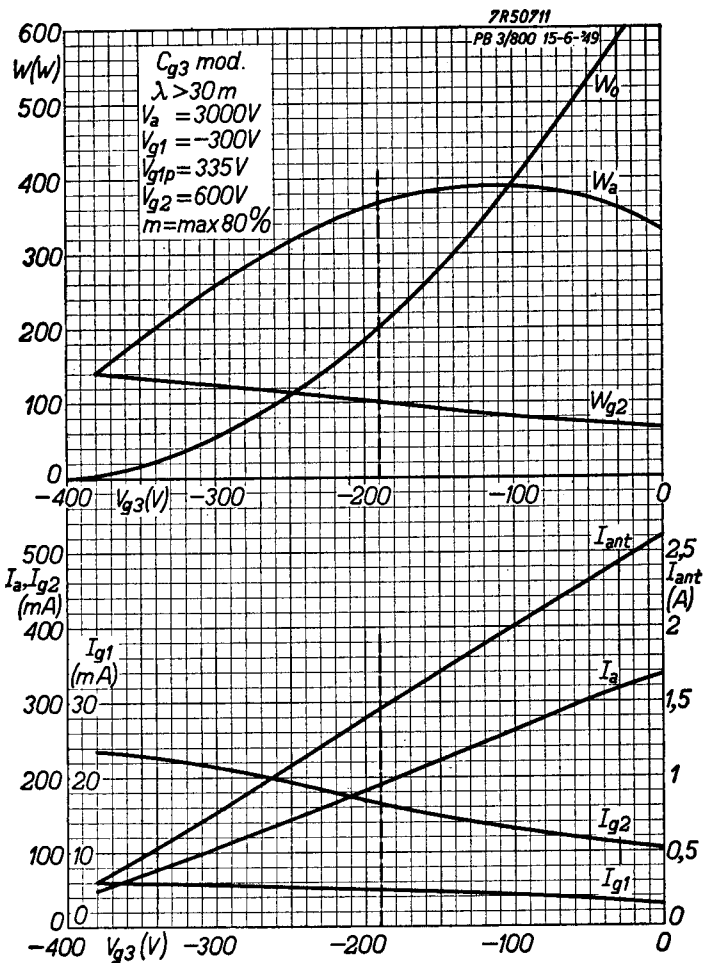


7R50710

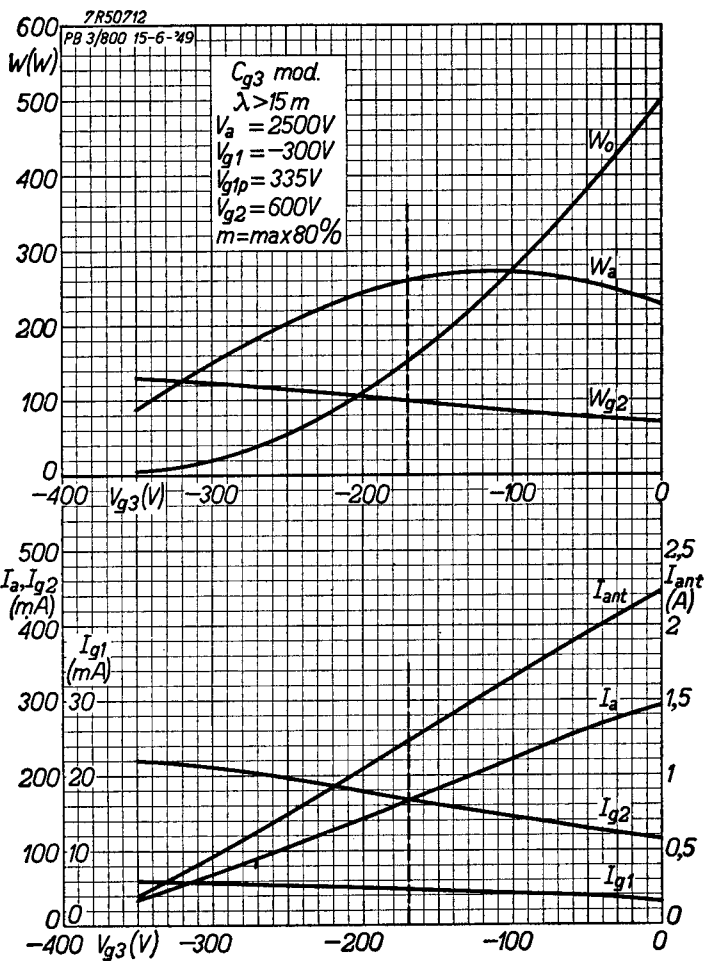
PB 3/800 15-6-49

B teleph.  
 $\lambda > 15 m$   
 $V_a = 2500V$   
 $V_{g1} = -115V$   
 $V_{g2} = 500V$   
 $V_{g3} = 0V$





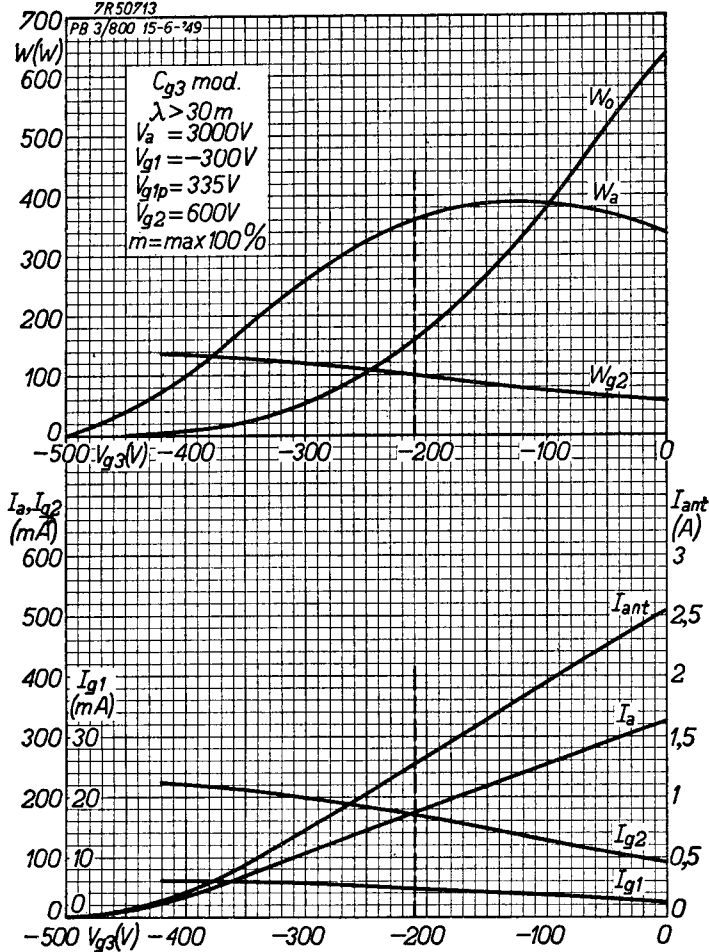


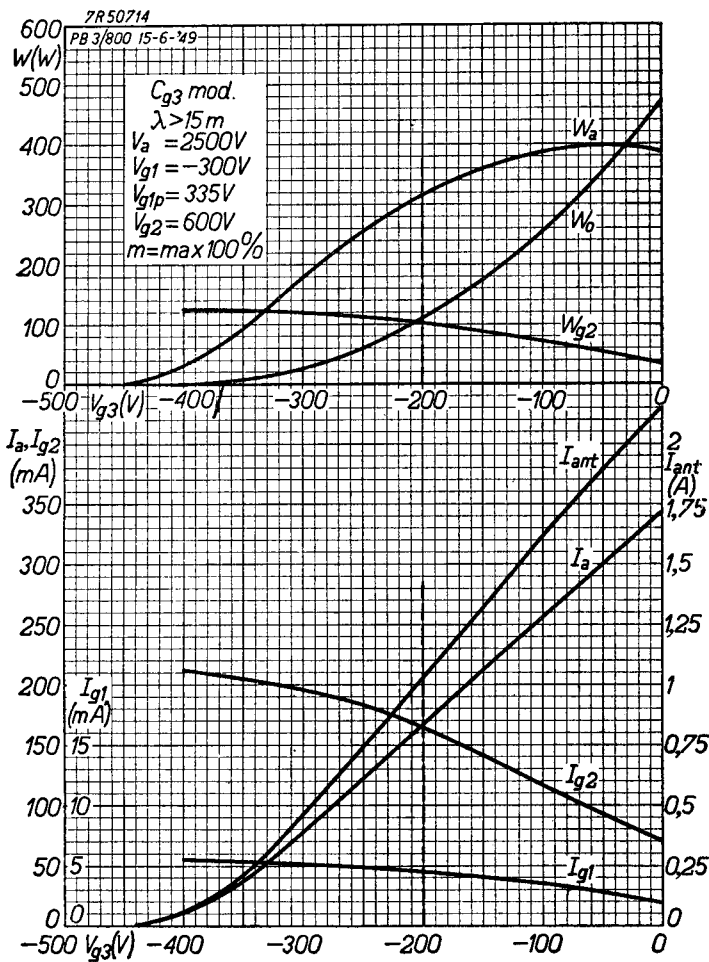


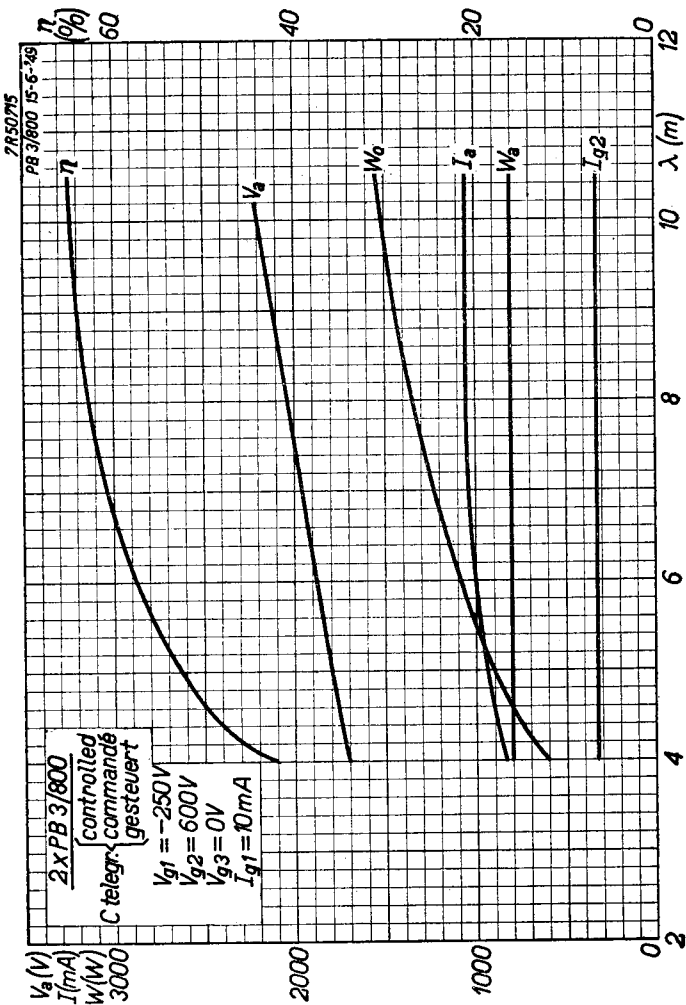
7R50713

PB 3/800 15-6-'49

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







**PHILIPS**

*Electronic  
Tube*

**HANDBOOK**

**PB3/800**

<b>page</b>	<b>sheet</b>	<b>date</b>
1	1	1954.07.07
2	2	1954.07.07
3	3	1949.04.05
4	4	1949.04.05
5	5	1950.02.02
6	6	1950.02.02
7	A	1954.07.07
8	B	1954.07.07
9	C	1954.07.07
10	D	1954.07.07
11	E	1954.07.07
12	F	1954.07.07
13	G	1954.07.07
14	H	1954.07.07
15	I	1954.07.07
16	J	1954.07.07
17	K	1954.07.07
18	L	1954.07.07
19	M	1954.07.07

20  
21, 22

N  
FP

1954.07.07  
2000.04.04