

PENIODE for use as H.F. amplifier  
 PENTHODE pour utilisation comme amplificatrice H.F.  
 PENIHOE zur Verwendung als H.F. Verstärker

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

Heating : direct V<sub>f</sub> = 12 V  
 Chauffage: direct I<sub>f</sub> = 7,3 A  
 Heizung : direkt

Capacitances Ca = 20 pF  
 Capacités Cg1 = 23 pF  
 Kapazitäten Cag1 = 0,2 pF

Typical characteristics  $\mu g_{2g1} = 6,2$   
 Caractéristiques typiques S (I<sub>a</sub>=120 mA) = 6 mA/V  
 Kenndaten

$\lambda$	Freq.	C telegr		B teleph.		Cag2 mod.		Cg3 mod.	
		V <sub>a</sub> (V)	W <sub>o</sub> (W)	V <sub>a</sub> (V)	W <sub>o</sub> (W)	V <sub>a</sub> (V)	W <sub>o</sub> (W)	V <sub>a</sub> (V)	W <sub>o</sub> (W)
>30	<10	2500	600			2000	325		
>15	<20	2000	550	2000	90	1800	290	2000	100
5 <sup>1)</sup>	60 <sup>1)</sup>	1500	625	1500	100	1200	350	1500	90

Limiting values  
 Caractéristiques limites  
 Grenzdaten

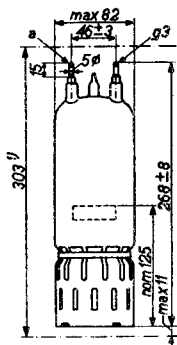
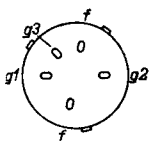
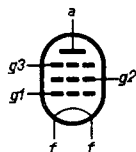
V<sub>a</sub> = max. 2500 V  
 W<sub>a</sub> = max. 250 W  
 V<sub>g2</sub> = max. 500 V  
 W<sub>g2</sub> = max. 60 W  
 temperature of pin seals  
 température des points de scellement des broches  
 Temperatur der Stiftenverschlüsse

R<sub>g3</sub> = max. 40 kΩ  
 W<sub>g1</sub> = max. 20 W  
 R<sub>g1</sub> = max. 40 kΩ  
 I<sub>k</sub> = max. 600 mA  
 I<sub>kp</sub> = max. 2400 mA

} = max. 200 °C

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

Dimensions in mm  
 Dimensions en mm  
 Abmessungen in mm



Socket  
 Support 40200  
 Fassung

Clips  
 Bornes de connexion 40600  
 Anschlussklemmen

Mounting position: vertical with base up<sup>2)</sup> or down  
 Montage : vertical avec culot en haut<sup>2)</sup> ou en bas  
 Einbau : senkrecht mit Sockel oben<sup>2)</sup> oder unten

Net weight 0,63 kg Shipping weight 2,3 kg  
 Poids net Poids brut  
 Nettogewicht Bruttogewicht

<sup>1)</sup> Required height in apparatus  
 Hauteur nécessaire dans l'appareil  
 Benötigte Höhe im Gerät

<sup>2)</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

$\lambda$	=	>30	>15	5 <sup>1)</sup>	m
Va	=	2500	2000	1500	V
Vg1	=	-150	-150	-150	V
Vg2	=	400	400	450	V
Vg3	=	0	0	0	V
Ia	=	340	400	750	mA
Ig1	=	20	20	30	mA
Ig2	=	150	150	260	mA
Vg1p	=	270	320	420	V
Wig1	=	5,4	6,4	14	W
Wg2	=	60	60	117	W
Wia	=	850	800	1125	W
Wa	=	250	250	500	W
Wo	=	600	550	625	W
$\eta$	=	70,5	69	55	%

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

Betriebsdaten H.F. Klasse B Telephonie

$\lambda$	=	>15	5 <sup>1)</sup>	m
Va	=	2000	1500	V
Vg1	=	-50	-50	V
Vg2	=	350	260	V
Vg3	=	0	0	V
Ia	=	170	300	mA
Ig2	=	12	40	mA
Vg1p	=	60	80	V
Wg2	=	4,2	11	W
Wia	=	340	450	W
Wa	=	250	350	W
Wo	=	90	100	W
$\eta$	=	26,5	22	%
<hr/>				
m	=	100	100	%
Ig1	=	6	30	mA
Wig1	=	0,7	5	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 Schirmgitter-  
 modulation

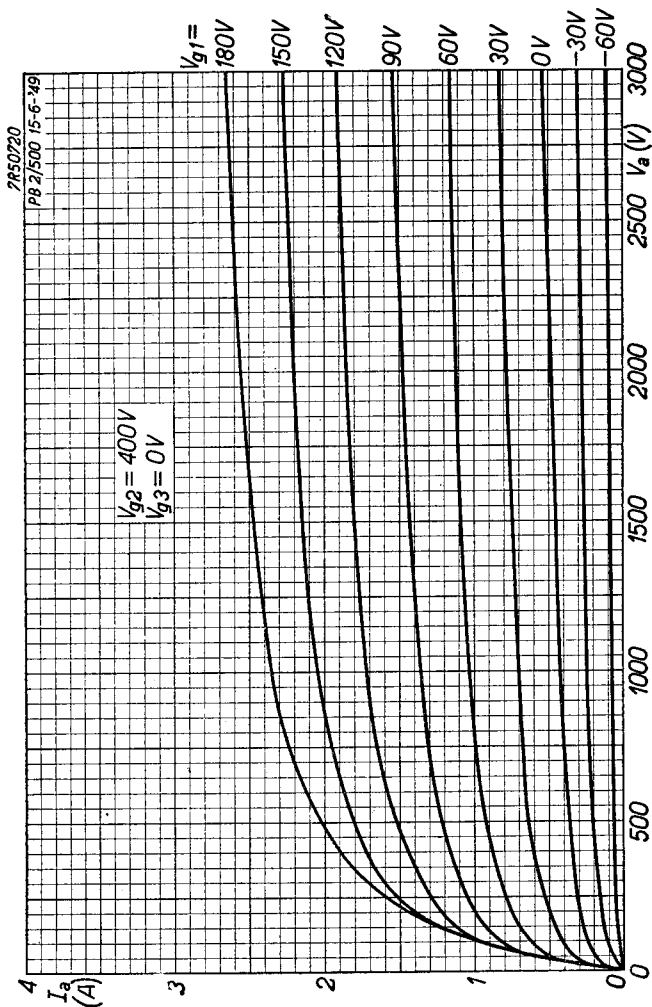
suppressor grid modul-  
 ation  
 modulation de grille  
 d'arrêt  
 Fanggittermodulation

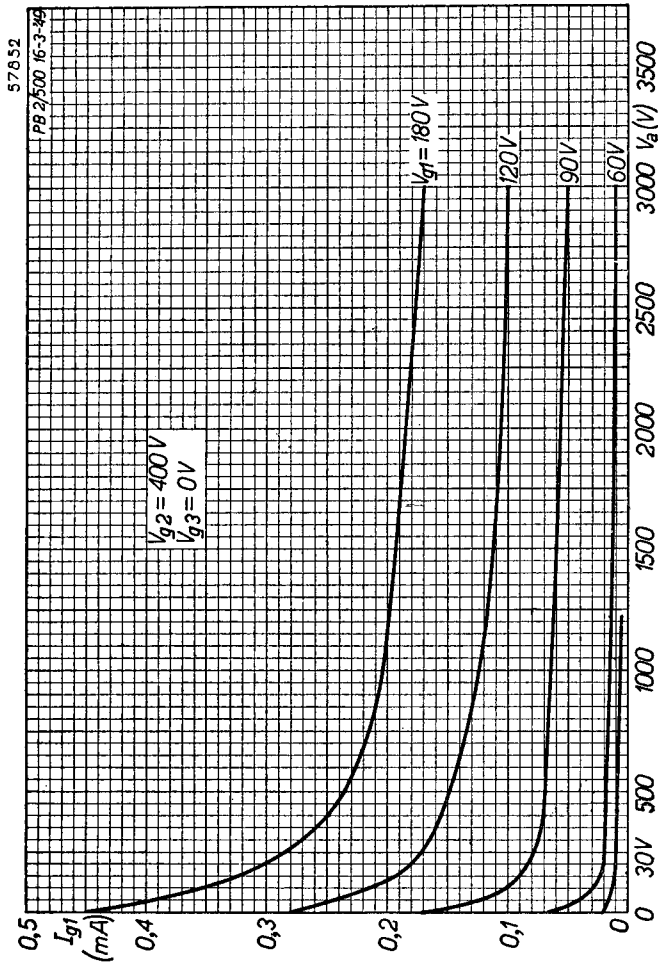
$\lambda$	=	>30	>15	5 <sup>1)</sup> )	>15	5 <sup>1)</sup> )	m
V <sub>a</sub>	=	2000	1800	1200	2000	1500	V
V <sub>G1</sub>	=	-150	-150	-150	-150	-150	V
V <sub>G2</sub>	=	300	300	400	300	500	V
V <sub>G3</sub>	=	0	0	0	-250	-260	V
I <sub>a</sub>	=	235	235	570	175	270	mA
I <sub>G1</sub>	=	25	30	30	24	7	mA
I <sub>G2</sub>	=	120	133	220	153	240	mA
V <sub>G1p</sub>	=	300	270	325	260	190	V
W <sub>IG1</sub>	=	7,5	8,1	10	6,2	2	W
W <sub>G2</sub>	=	36	40	88	46	120	W
W <sub>ia</sub>	=	470	423	685	350	405	W
W <sub>a</sub>	=	145	133	335	250	315	W
W <sub>o</sub>	=	325	290	350	100	90	W
$\eta$	=	69	68,5	51	28,5	22	%
<hr/>							
m	=	100	100	100	100	90	%
V <sub>G2p</sub>	=	300	300	400			V
V <sub>G3p</sub>	=				250	260	V
W <sub>mod</sub>	=	253	235	390	0	0	W

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

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

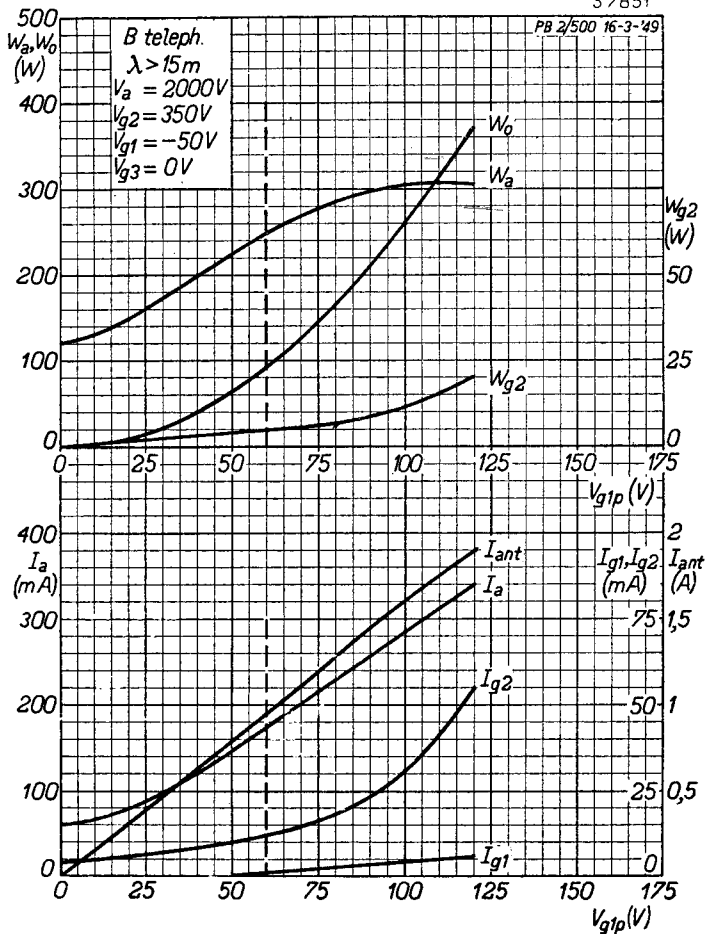
Va	=	2500	V
Vg1	=	-90	V
Vg2	=	500	V
Vg3	=	0	V
Raa	=	10	kΩ
Vg1g1p	=	0	290 V
Ia	=	2x50	2x283 mA
Ig1	=	0	2x7 mA
Ig2	=	2x6	2x95 mA
Wig1	=	0	2x1 W
Wg2	=	2x3	2x47,5 W
Wia	=	2x125	2x708 W
Wa	=	2x125	2x208 W
Wo	=	0	1000 W
η	=	-	70 %





57851

PB 2/500 16-3-49

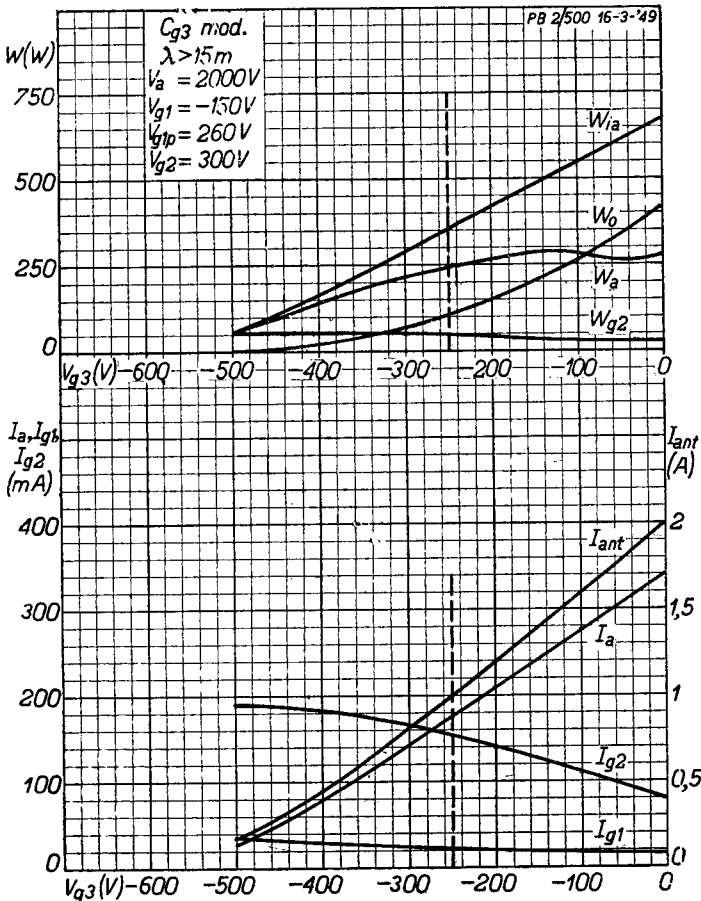




**PB 2/500****PHILIPS**

57850

PB 2/500 16-3-'49



D

**PHILIPS**

*Electronic  
Tube*

**HANDBOOK**

	<b>PB2/500</b>	
<b>page</b>	<b>sheet</b>	<b>date</b>
1	1	1954.07.07
2	2	1954.07.07
3	3	1949.03.03
4	4	1949.03.03
5	5	1949.03.03
6	A	1949.07.07
7	B	1949.07.07
8	C	1949.03.18
9	D	1949.03.18
10	FP	2000.04.04