

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

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

Heating : direct  
 Chauffage: direct  
 Heizung : direkt

Vf = 12 V  
 If = 7,3 A

Capacitances  
 Capacités  
 Kapazitäten

Ca = 20 pF  
 Cg1 = 23 pF  
 Cag1 = 0,2 pF

Typical characteristics  
 Caractéristiques typiques  
 Kenndaten

$\mu_{g2g1} = 6,2$   
 $S (I_a=120 \text{ mA}) = 6 \text{ mA/V}$

| $\lambda$<br>m  | Freq.<br>Mc/s    | C telegr  |           | B teleph. |           | Cag2 mod. |           | Cg3 mod.  |           |
|-----------------|------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
|                 |                  | Va<br>(V) | Wo<br>(W) | Va<br>(V) | Wo<br>(W) | Va<br>(V) | Wo<br>(W) | Va<br>(V) | Wo<br>(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

Va = max. 2500 V

Wa = max. 250 W

Vg2 = max. 500 V

Wg2 = max. 60 W

temperature of pin seals

température des points de scellement des broches

Temperatur der Stiftenschlüsse

Rg3 = max. 40 k $\Omega$

Wg1 = max. 20 W

Rg1 = max. 40 k $\Omega$

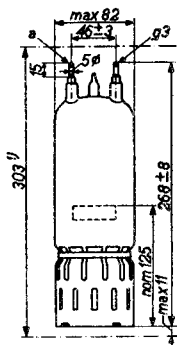
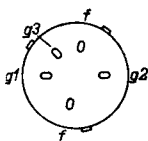
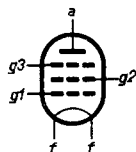
Ik = max. 600 mA

Ikp = 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 Shipping weight  
 Poids net 0,63 kg Poids brut 2,3 kg  
 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 télégraphie

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 téléphonie

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

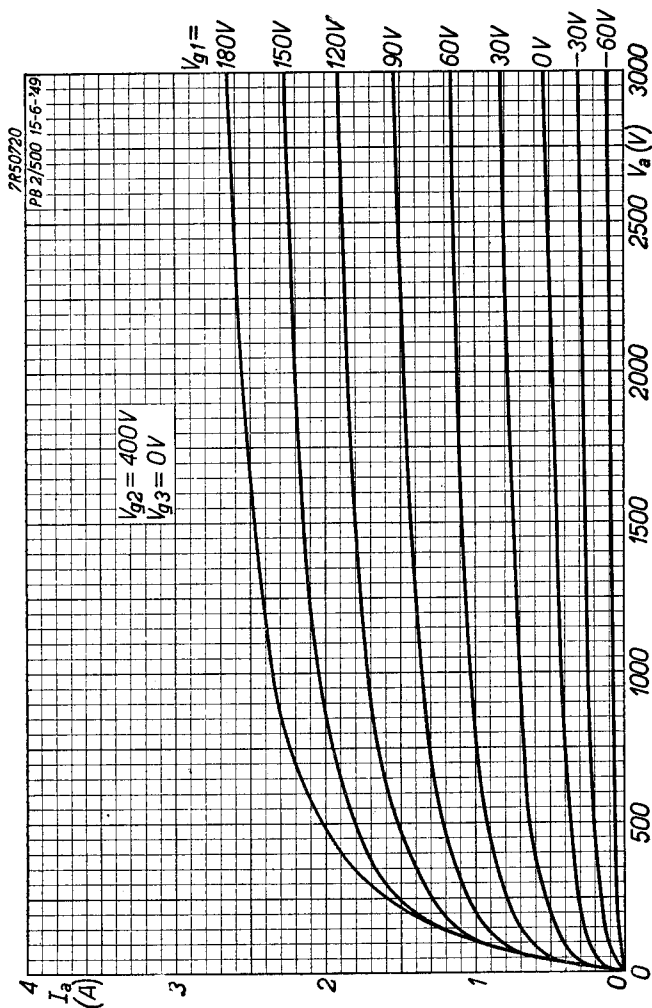
suppressor grid modul-  
 ation  
 modulation de grille  
 d'arrêt  
 Fanggittermodulation

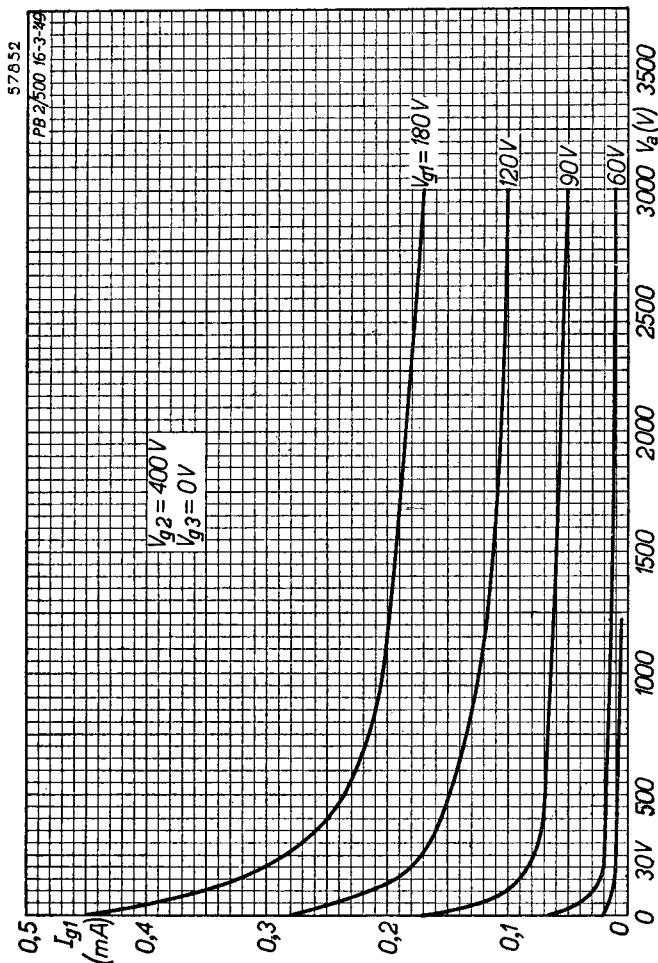
|           |   |      |      |                 |      |                 |    |
|-----------|---|------|------|-----------------|------|-----------------|----|
| $\lambda$ | = | >30  | >15  | 5 <sup>1)</sup> | >15  | 5 <sup>1)</sup> | m  |
| Va        | = | 2000 | 1800 | 1200            | 2000 | 1500            | V  |
| Vg1       | = | -150 | -150 | -150            | -150 | -150            | V  |
| Vg2       | = | 300  | 300  | 400             | 300  | 500             | V  |
| Vg3       | = | 0    | 0    | 0               | -250 | -260            | V  |
| Ia        | = | 235  | 235  | 570             | 175  | 270             | mA |
| Ig1       | = | 25   | 30   | 30              | 24   | 7               | mA |
| Ig2       | = | 120  | 133  | 220             | 153  | 240             | mA |
| Vg1p      | = | 300  | 270  | 325             | 260  | 190             | V  |
| Wig1      | = | 7,5  | 8,1  | 10              | 6,2  | 2               | W  |
| Wg2       | = | 36   | 40   | 88              | 46   | 120             | W  |
| Wia       | = | 470  | 423  | 685             | 350  | 405             | W  |
| Wa        | = | 145  | 133  | 335             | 250  | 315             | W  |
| Wo        | = | 325  | 290  | 350             | 100  | 90              | W  |
| $\eta$    | = | 69   | 68,5 | 51              | 28,5 | 22              | %  |
| m         | = | 100  | 100  | 100             | 100  | 90              | %  |
| Vg2p      | = | 300  | 300  | 400             |      |                 | V  |
| Vg3p      | = |      |      |                 | 250  | 260             | V  |
| Wmod      | = | 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

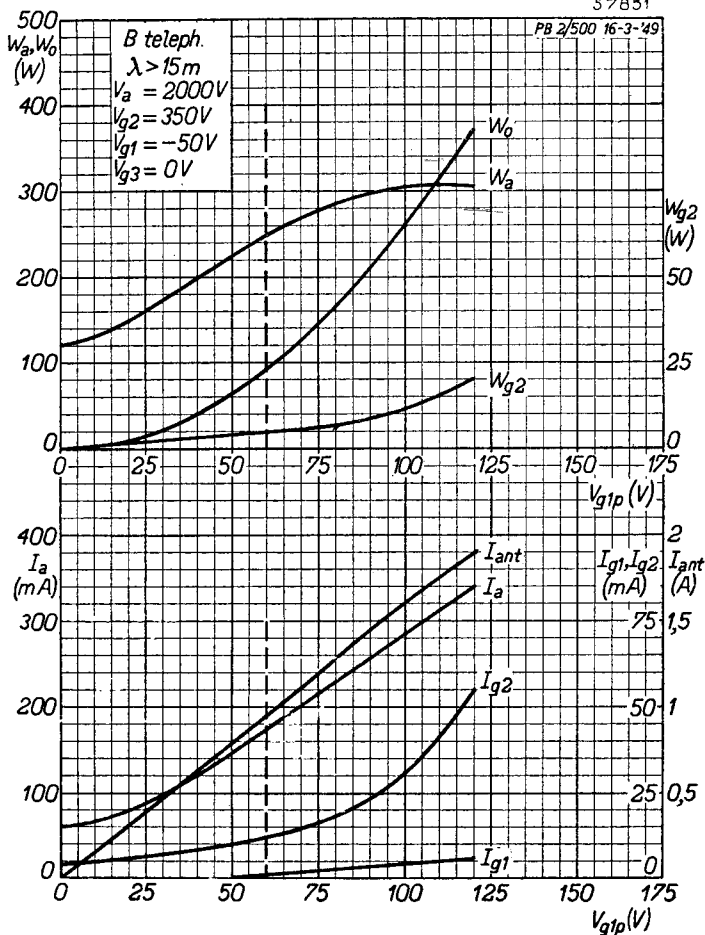
|             |   |       |            |
|-------------|---|-------|------------|
| $V_a$       | = | 2500  | V          |
| $V_{g1}$    | = | -90   | V          |
| $V_{g2}$    | = | 500   | V          |
| $V_{g3}$    | = | 0     | V          |
| $R_{aa}$    | = | 10    | k $\Omega$ |
| $V_{g1g1p}$ | = | 0     | 290 V      |
| $I_a$       | = | 2x50  | 2x283 mA   |
| $I_{g1}$    | = | 0     | 2x7 mA     |
| $I_{g2}$    | = | 2x6   | 2x95 mA    |
| $W_{ig1}$   | = | 0     | 2x1 W      |
| $W_{g2}$    | = | 2x3   | 2x47,5 W   |
| $W_{ia}$    | = | 2x125 | 2x708 W    |
| $W_a$       | = | 2x125 | 2x208 W    |
| $W_o$       | = | 0     | 1000 W     |
| $\eta$      | = | -     | 70 %       |





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PB 2/500 16-3-49



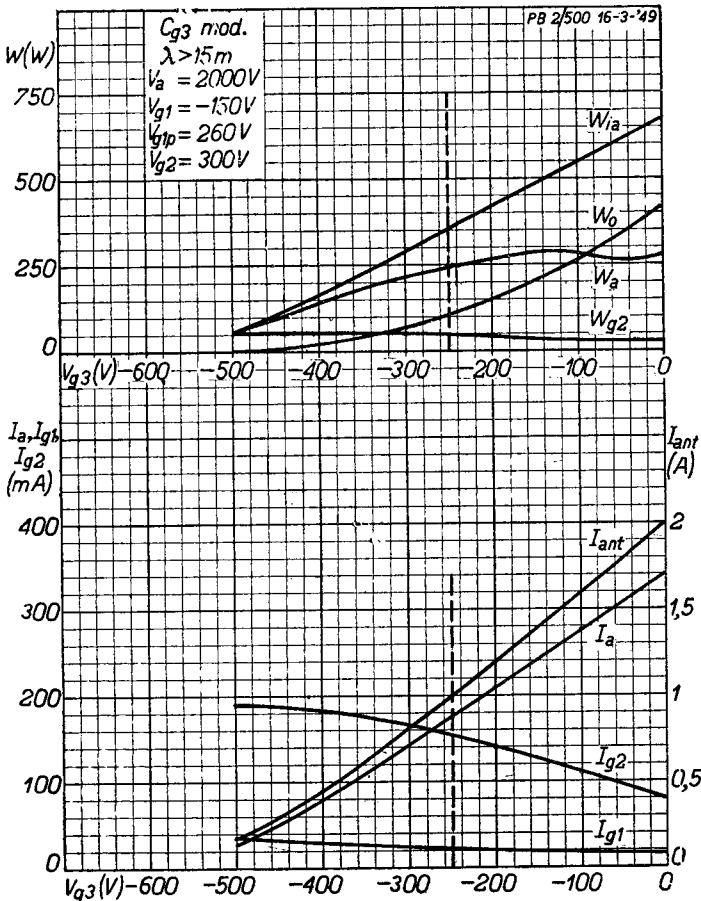


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**PB2/500**

| <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  |