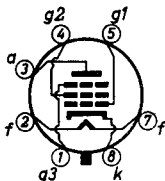


**OUTPUT PENTODE  
PENTHODE DE SORTIE  
ENDPENTODE**

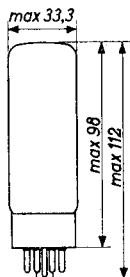
Heating: indirect by A.C. or D.C.;  
parallel supply  
Chauffage: indirect par C.A. ou C.C.;  
alimentation en parallèle  
Heizung: indirekt durch Wechsel-  
oder Gleichstrom;  
Parallelspeisung

$$\begin{aligned} V_f &= 6,3 \text{ V} \\ I_f &= 1,5 \text{ A} \end{aligned}$$

Dimensions in mm  
Dimensions en mm  
Abmessungen in mm



Base  
Culot OCTAL  
Sockel



Socket  
Support 5903/13  
Fassung

Capacitances  
Capacités  
Kapazitäten

$$\begin{aligned} C_{g1} &= 15,2 \text{ pF} \\ C_a &= 8,4 \text{ pF} \\ C_{g1k} &< 1,1 \text{ pF} \\ C_{g1f} &< 1,0 \text{ pF} \\ C_{kf} &= 10 \text{ pF} \end{aligned}$$

**Remark** When using a sinusoidal input signal care should be taken not to exceed the maximum admissible  $W_{g2}$ .

**Observation** En cas d'un signal d'entrée sinusoïdal il faut faire attention à ne pas dépasser la valeur maximum admissible de  $W_{g2}$ .

**Bemerkung** Bei Verwendung eines sinusförmigen Eingangssignales muss darauf geachtet werden dass der maximal zulässige Wert von  $W_{g2}$  nicht überschritten wird.

Operating characteristics class A  
Caractéristiques d'utilisation classe A  
Betriebsdaten Klasse A

|                             |   |       |       |            |
|-----------------------------|---|-------|-------|------------|
| $V_b$                       | = | 265   | 265   | V          |
| $V_a$                       | = | 250   | 250   | V          |
| $R_{g2}$                    | = | 2     | 0     | k $\Omega$ |
| $V_{g3}$                    | = | 0     | 0     | V          |
| $V_{g1}$                    | = | -14,5 | -13,5 | V          |
| $I_a$                       | = | 70    | 100   | mA         |
| $I_{g2}$                    | = | 10    | 14,9  | mA         |
| $S$                         | = | 9,0   | 11    | mA/V       |
| $\mu_{g2g1}$                | = | 11    | 11    |            |
| $R_i$                       | = | 18    | 15    | k $\Omega$ |
| $R_a$                       | = | 3,0   | 2,0   | k $\Omega$ |
| $V_i$                       | = | 9,3   | 8,7   | $V_{eff}$  |
| $W_o$                       | = | 8     | 11    | W          |
| $dt_{tot}$                  | = | 10    | 10    | %          |
| $V_i (W_o = 50 \text{ mW})$ | = | 0,65  | 0,5   | $V_{eff}$  |

Operating characteristics class B  
Caractéristiques d'utilisation classe B  
Betriebsdaten Klasse B

|      |   |       |       |       |       |                        |      |                  |
|------|---|-------|-------|-------|-------|------------------------|------|------------------|
| Rg2  | = | 1000  |       | 470   |       | $\Omega$ <sup>1)</sup> |      |                  |
| Vg1  | = | -38   |       | -32   |       | V                      |      |                  |
| Vg3  | = | 0     |       | 0     |       | V                      |      |                  |
| Vi   | = | 0     | 27    | 27    | 0     | 22,7                   | 22,7 | V <sub>eff</sub> |
| Raa  | = | -     | 3,4   | 4,0   | -     | 2,8                    | 3,8  | k $\Omega$       |
| Vb   | = | 425   | 425   | 400   | 375   | 375                    | 350  | V                |
| Va   | = | 420   | 400   | 375   | 370   | 350                    | 325  | V                |
| Ia   | = | 2x30  | 2x120 | 2x100 | 2x35  | 2x120                  | 2x93 | mA               |
| Ig2  | = | 2x4,4 | 2x25  | 2x25  | 2x4,7 | 2x25                   | 2x25 | mA               |
| Wo   | = | 0     | 55    | 45    | 0     | 44                     | 36   | W                |
| dtot | = | -     | 5     | 6     | -     | 5                      | 6    | %                |

1) Common screen grid resistor; non decoupled  
Résistance de grille-écran commune; ne pas découplée  
Gemeinsamer Schirmgitterwiderstand; nicht entkoppelt

|           |   |      |       |       |                        |
|-----------|---|------|-------|-------|------------------------|
| $R_{g2}$  | = | 750  |       | 750   | $\Omega$ <sup>1)</sup> |
| $V_{g1}$  | = | -36  |       | -39   | V                      |
| $V_{g3}$  | = | 0    |       | 0     | V                      |
| $V_i$     | = | 0    | 25,8  | 25,8  | $V_{eff}$              |
| $R_{aa}$  | = | -    | 4     | 5     | 11 k $\Omega$          |
| $V_{ba}$  | = | 500  | 500   | 475   | 750 V                  |
| $V_a$     | = | 495  | 475   | 450   | 725 V                  |
| $V_{bg2}$ | = | 400  | 400   | 375   | 375 V                  |
| $I_a$     | = | 2x30 | 2x125 | 2x102 | 2x84 mA                |
| $I_{g2}$  | = | 2x4  | 2x25  | 2x25  | 2x19 mA                |
| $W_o$     | = | 0    | 70    | 58    | 90 W                   |
| $d_{tot}$ | = | -    | 5     | 6     | 5 %                    |

Operating conditions class AB

Caractéristiques d'utilisation classe AB

Betriebsdaten Klasse AB

|                |   |        |                        |
|----------------|---|--------|------------------------|
| $R_{aa}$       | = | 3,4    | k $\Omega$             |
| $R_{g2}$       | = | 470    | $\Omega$ <sup>1)</sup> |
| $R_k$          | = | 130    | $\Omega$               |
| $V_{g3}$       | = | 0      | V                      |
| $V_i$          | = | 0      | 21 $V_{eff}$           |
| $V_b$          | = | 375    | 375 V                  |
| $V_a + V_{Rk}$ | = | 355    | 350 V                  |
| $I_a$          | = | 2x75   | 2x95 mA                |
| $I_{g2}$       | = | 2x11,5 | 2x22,5 mA              |
| $W_o$          | = | 0      | 35 W                   |
| $d_{tot}$      | = | -      | 5 %                    |

<sup>1)</sup> Common screen grid resistor; non decoupled  
 Résistance de grille-écran commune; ne pas découplée  
 Gemeinsamer Schirmgitterwiderstand; nicht entkoppelt

Operating conditions in triode connection

( $g_2$  connected to anode)

Caractéristiques d'utilisation en connexion triode

( $g_2$  relié à l'anode)

Betriebsdaten in Triodenschaltung

( $g_2$  verbunden mit Anode)

|                 | Class A  | Class AB  |            |
|-----------------|----------|-----------|------------|
|                 | Classe A | Classe AB |            |
|                 | Klasse A | Klasse AB |            |
| $V_b$           | = 375    | 400       | V          |
| $V_{g3}$        | = 0      | 0         | V          |
| $R_k$           | = 370    | 220       | $\Omega$   |
| $R_a$           | = 3      | -         | k $\Omega$ |
| $R_{aa}$        | = -      | 5         | k $\Omega$ |
| $V_1$           | = 18,9   | 0 22      | $V_{eff}$  |
| $I_a$           | = 70     | 2x65 2x71 | mA         |
| $W_0$           | = 6      | 0 16,5    | W          |
| $d$             | = 8      | - 3       | %          |
| $V_1(W_0=50mW)$ | = 1,7    |           | $V_{eff}$  |

Limiting values

Caractéristiques limites

Grenzdaten

|                                |                       |
|--------------------------------|-----------------------|
| $V_{a0}$                       | = max. 2000 V         |
| $V_a$                          | = max. 800 V          |
| $W_a (V_1 = 0)$                | = max. 25 W           |
| $W_a (V_1 > 0)$                | = max. 27,5 W         |
| $V_{g20}$                      | = max. 800 V          |
| $V_{g2}$                       | = max. 425 V          |
| $W_{g2}$                       | = max. 8 W            |
| $I_k$                          | = max. 150 mA         |
| $V_{g1} (I_{g1} = +0,3 \mu A)$ | = max. -1,3 V         |
| $R_{g1} (A, AB)$               | = max. 0,7 M $\Omega$ |
| $R_{g1} (B)$                   | = max. 0,5 M $\Omega$ |
| $V_{fk}$                       | = max. 100 V          |
| $R_{fk}$                       | = max. 20 k $\Omega$  |

57320  
EL 60 2-2-49

250  
 $I(mA)$

1.  $V_a = 250V; V_{g2} = 250V; V_{g3} = 0V$
2.  $V_a = 350V; V_{g2} = 375V; V_{g3} = 0V$
3.  $V_a = 400V; V_{g2} = 425V; V_{g3} = 0V$

—  $I_a$   
---  $I_{g2}$

200

150

100

50

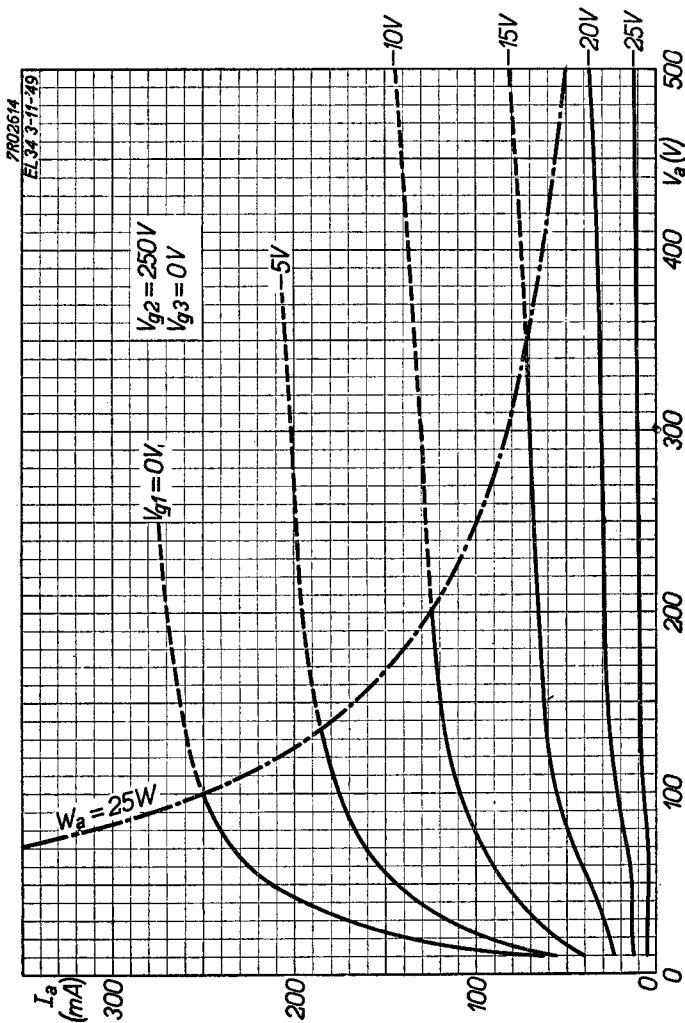
0

$V_{g1}(V) -60$

-40

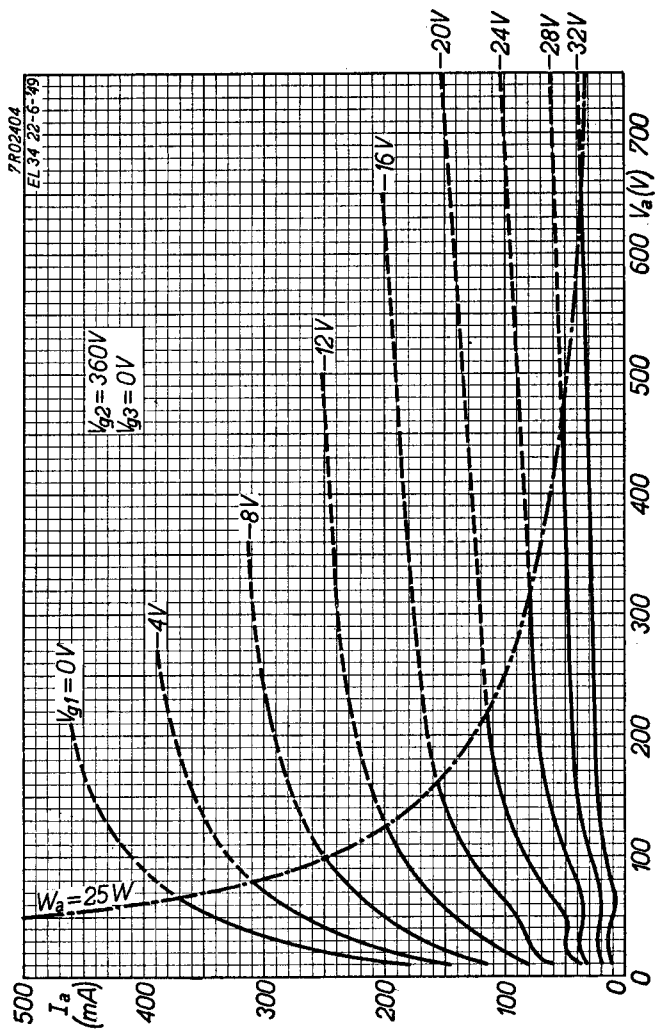
-20

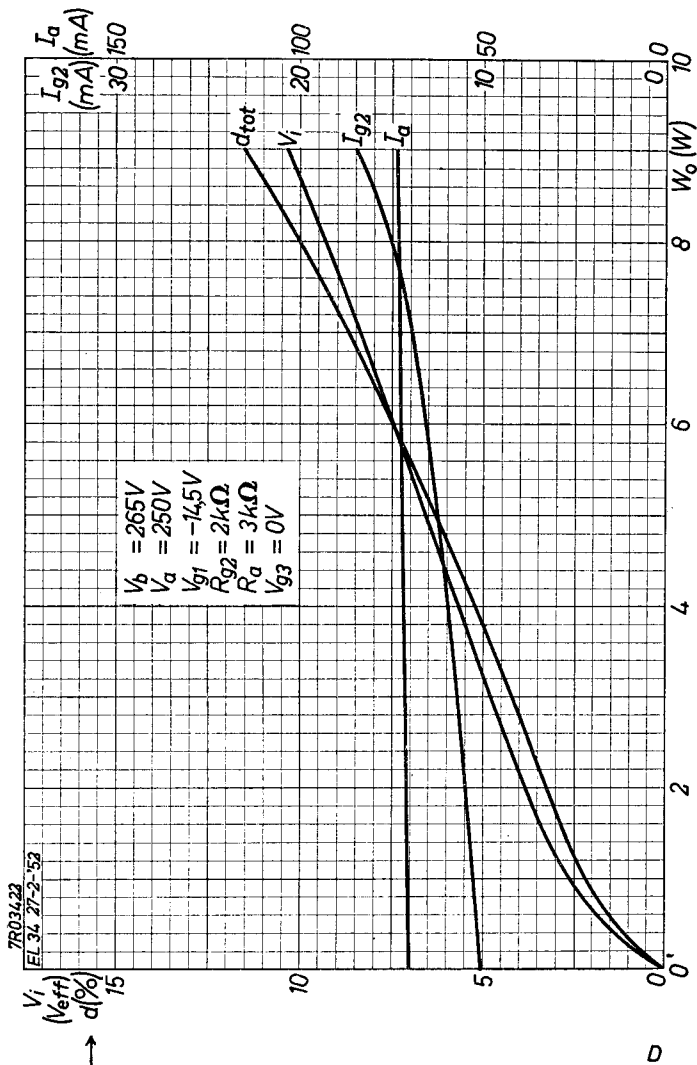
0

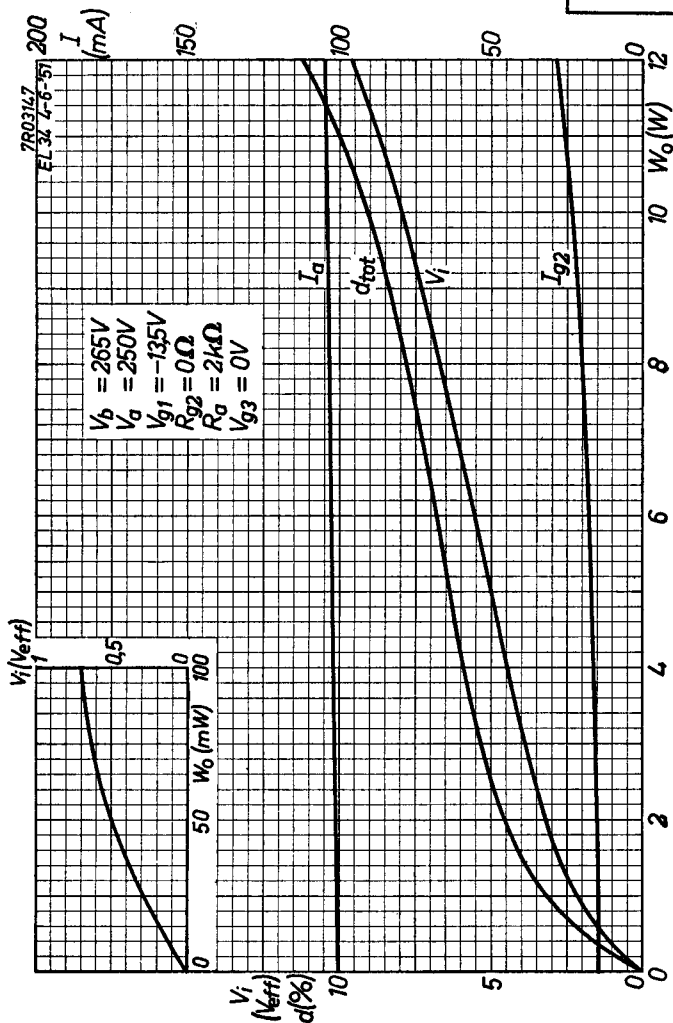
**EL 34****PHILIPS****B**

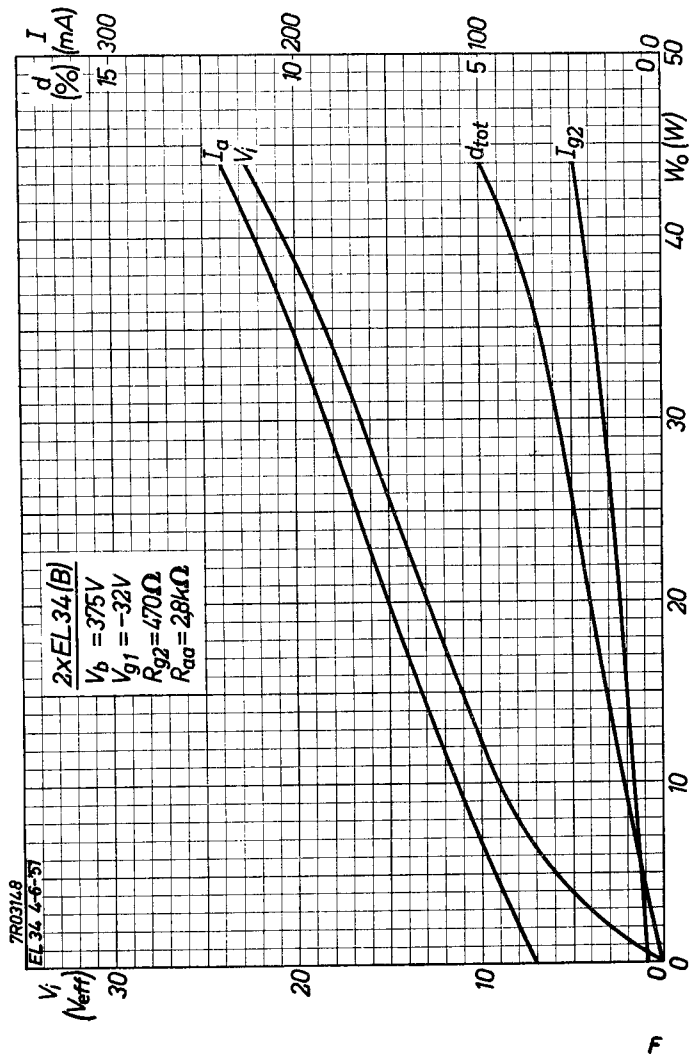
# PHILIPS

## EL 34



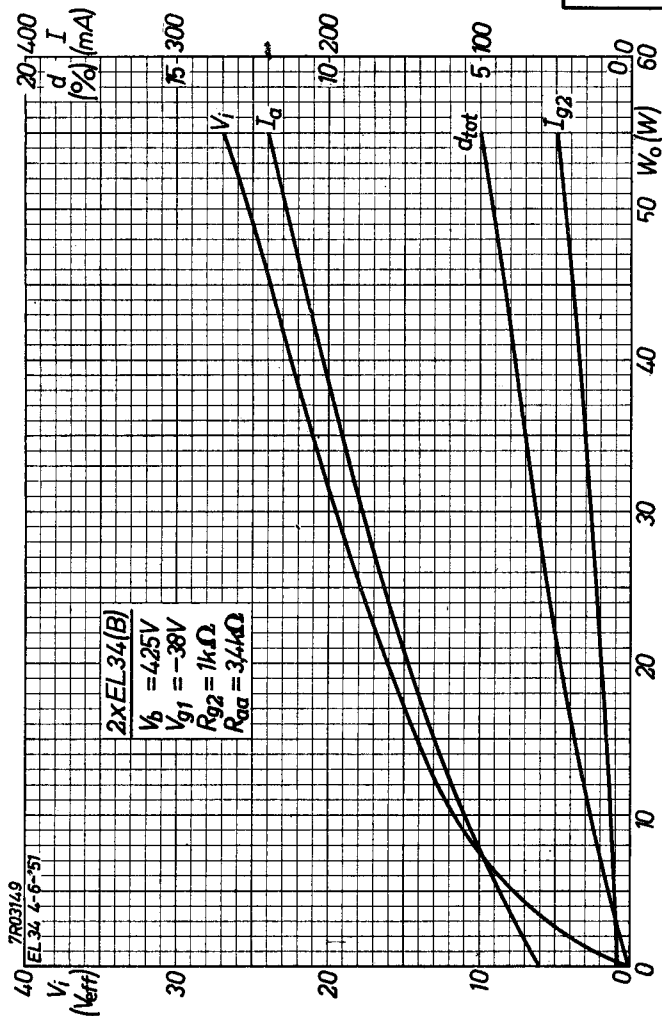
**EL 34****PHILIPS**



**EL 34****PHILIPS**

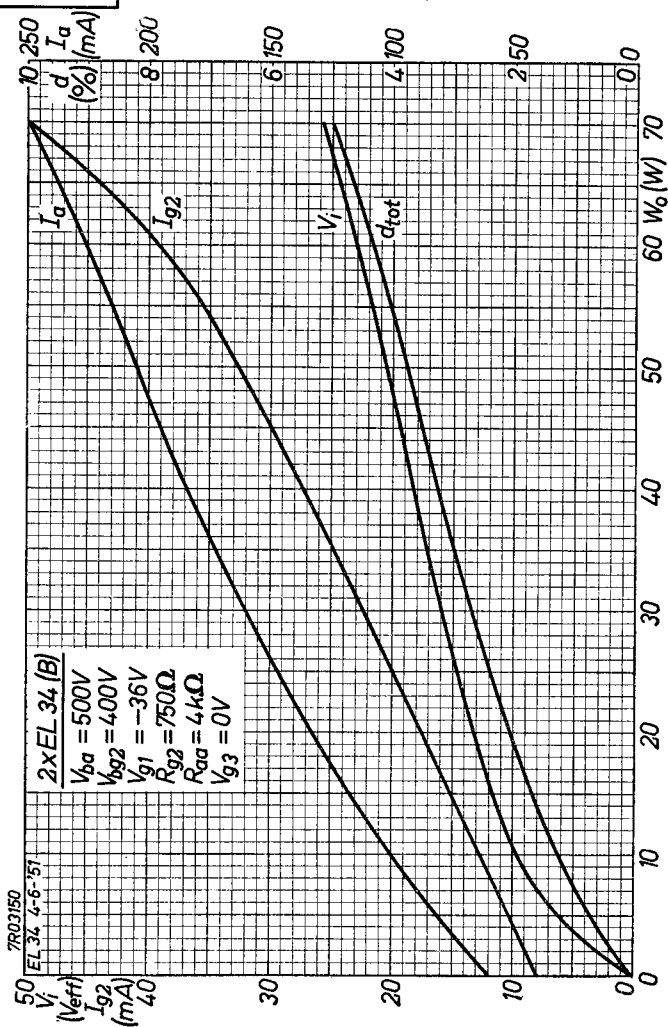
# PHILIPS

# EL 34

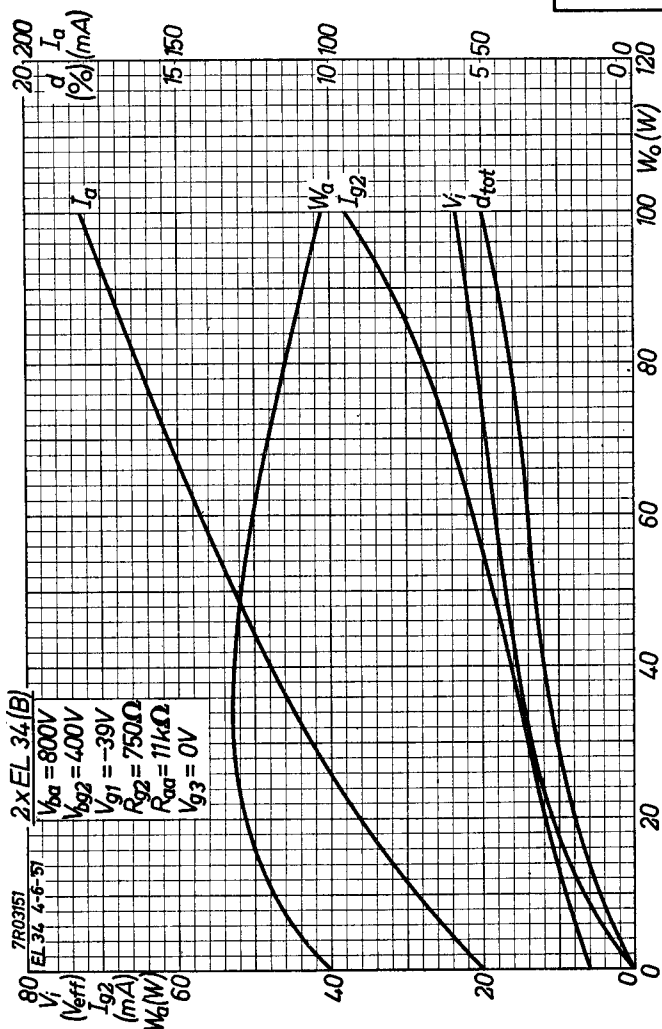


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**EL 34****PHILIPS**

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# EL 34

# PHILIPS

