# PHILIPS

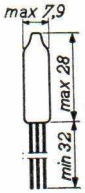
**DF 65**
**DF 67**

A.F. SUBMINIATURE PENTODE for hearing aids
PENTHODE SUBMINIATURE B.F.pour appareils de sourds
NF-SUBMINIATURPENTODE für Schwerhörigengeräte

Heating : direct by D.C.
series or parallel supply
Chauffage: direct par C.C.
alimentation en série ou en parallèle
Heizung : direkt durch Gleichstrom
Serien-oder Parallelspeisung

$V_f$ = 0,625 V
$I_f$ = 13,3 mA

Dimensions in mm Dimensions en mm
Abmessungen in mm

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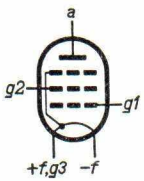
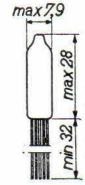
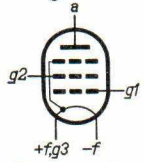



**DF67**

c




Base, culot, Sockel: Subminiature

| | | | |
|---|---|---|---|
| Capacitances<br>Capacités<br>Kapazitäten | $C_{g1}$ | = | 1,5 pF |
| | $C_a$ | = | 1,5 pF |
| | $C_{ag1}$ | < | 0,2 pF |
| Typical characteristics<br>Caractéristiques types<br>Kenndaten | $V_a$ | = | 22,5 V |
| | $V_{g2}$ | = | 18 V |
| | $V_{g1}$ | = | -1,15 V |
| | $I_a$ | = | 0,05 mA |
| | $I_{g2}$ | = | 0,01 mA |
| | S | = | 0,1 mA/V |
| | $R_i$ | = | 4 MΩ |
| | $\mu_{g2g1}$ | = | 8,7 |

1)Red spot
Point rouge
Roter Punkt

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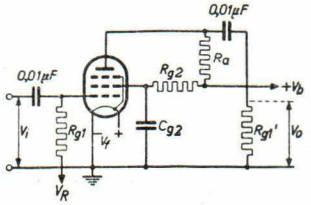
Operating characteristics
Caractéristiques d'utilisation
Betriebsdaten




| | | | | | | |
|---|---|---|---|---|---|---|
| $V_b$ | 15 | 15 | 22,5 | 22,5 | 22,5 | V |
| $V_R$ | 0 | -0,63 | 0 | -0,63 | 0 | V |
| $R_a$ | 1 | 1 | 1 | 1 | 4,7 | MΩ |
| $R_{g2}$ | 3,9 | 2,7 | 3,9 | 2,7 | 18 | MΩ |
| $R_{g1}$ | 10[1]) | 5 | 10[1]) | 5 | 10 | MΩ |
| $R_{g1}'$ | 5 | 10 | 5 | 10 | 10 | MΩ |
| $C_{g2}$ | 0,5 | 0,5 | 0,5 | 0,5 | 0,002 | µF |
| $I_a$ | - | - | 11,7 | 11,8 | - | µA |
| $I_{g2}$ | - | - | 2,5 | 3,0 | - | µA |
| $\frac{V_o}{V_i}$ | 19 | 22 | 31 | 30 | 33 | |
| $d_{tot}(V_o=3V_{eff})$ | 9 | 9 | 5 | 5 | 7 | % |

Limiting values
Caractéristiques limites
Grenzdaten

| | | | |
|---|---|---|---|
| $V_a$ | = max. 45 V | $V_{g1}(I_{g1}=+0,3\mu A)$ | = max. -0,2 V |
| $W_a$ | = max. 1,5 mW | $I_k$ | = max. 75 µA |
| $V_{g2}$ | = max. 45 V | $R_{g1}$ | = max. 10 MΩ |
| $W_{g2}$ | = max. 0,5 mW | Vf | = max. 0,78 V |
| | | $V_f$ | = min. 0,45 V |

[1]) The input resistance of the tube is about 4 MΩ in this case
La résistance d'entrée du tube est de 4 MΩ environ en ce cas
Die Eingangsdämpfung der Röhre beträgt etwa 4 MΩ in diesem Fall

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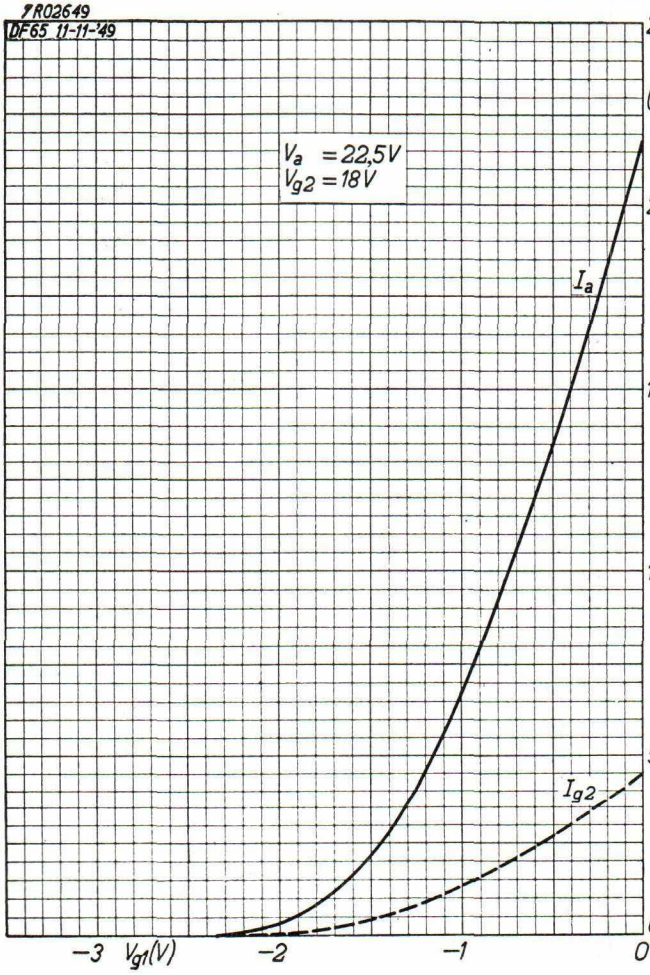


10.10.1953

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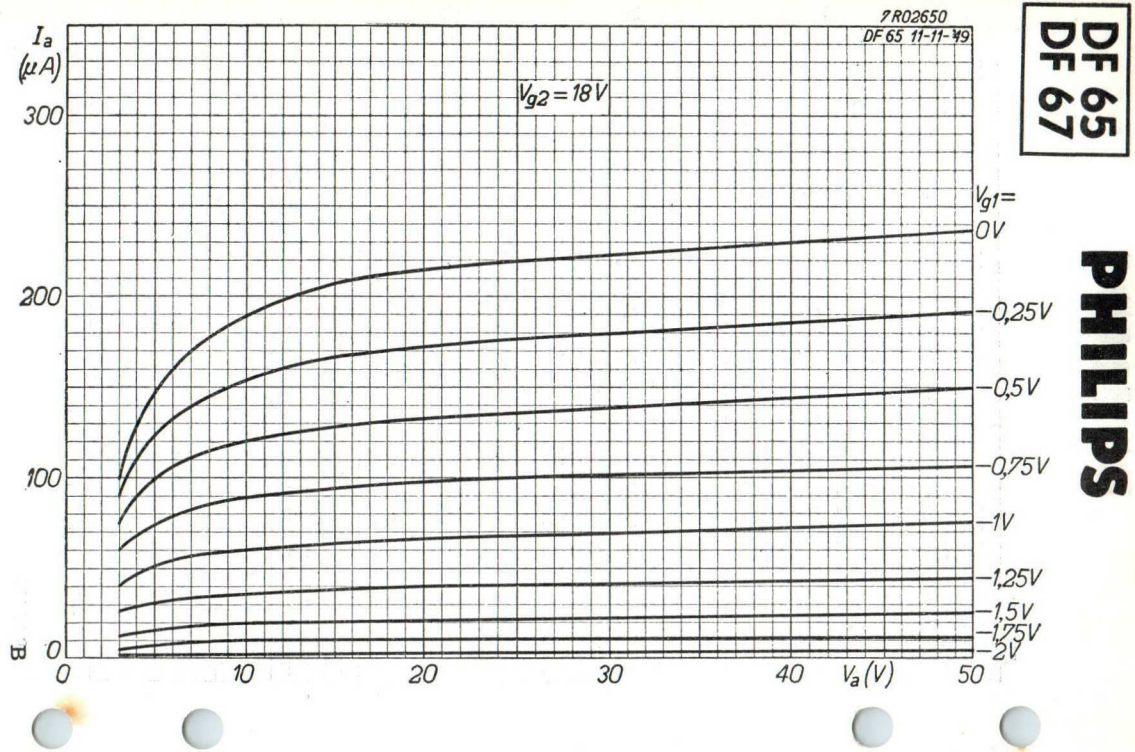


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