

A.F. OUTPUT PENTODE

Beam pentode intended for use as A. F. power amplifier.

| QUICK REFERENCE DATA | | |
|-------------------------|----------------|---------|
| Anode current | I_a | 110 mA |
| Transconductance | S | 23 mA/V |
| Amplification factor | $\mu_{g_2g_1}$ | 13 |
| Output power (class AB) | W_o | 40 W |

HEATING: Indirect by A. C. or D. C. ; parallel supply

Heater voltage

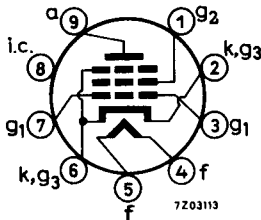
V_f 6.3 V

Heater current

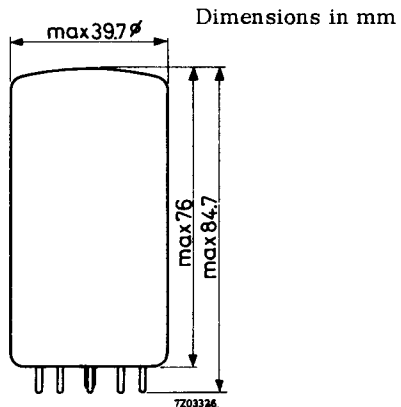
I_f 1.05 A

DIMENSIONS AND CONNECTIONS

Base: Magnoval



7203113



7203326

CAPACITANCES

Anode to all except grid No. 1

$C_a(g_1)$ 13.5 pF

Grid No. 1 to all except anode

$C_{g_1(a)}$ 22.5 pF

Anode to grid No. 1

C_{ag_1} 1.7 pF

Grid No. 1 to heater

C_{g_1f} 0.325 pF

TYPICAL CHARACTERISTICS

| | | | |
|----------------------|----------------|------|------------|
| Anode voltage | V_a | 250 | V |
| Grid No.2 voltage | V_{g_2} | 250 | V |
| Grid No.1 voltage | V_{g_1} | 14.0 | V |
| Anode current | I_a | 110 | mA |
| Grid No.2 current | I_{g_2} | 7.0 | mA |
| Transconductance | S | 23 | mA/V |
| Amplification factor | $\mu_{g_2g_1}$ | 13 | |
| Internal resistance | R_i | 5.4 | k Ω |

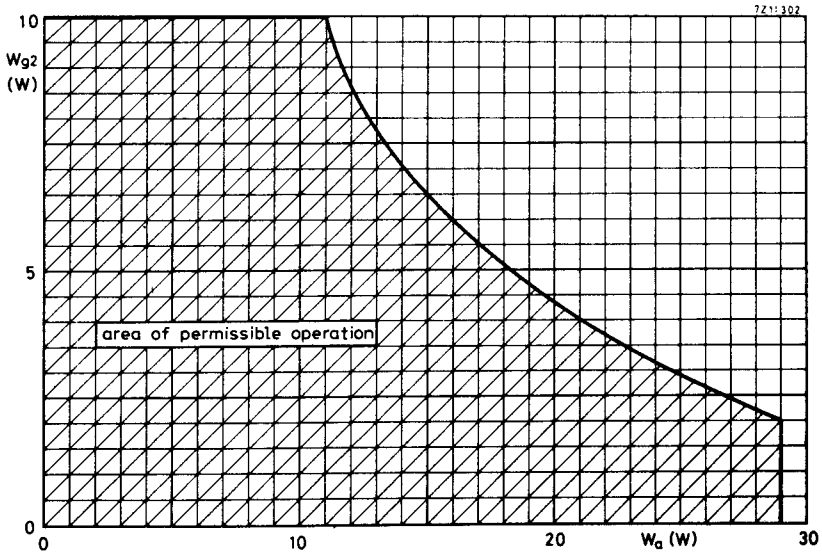
OPERATING CHARACTERISTICS

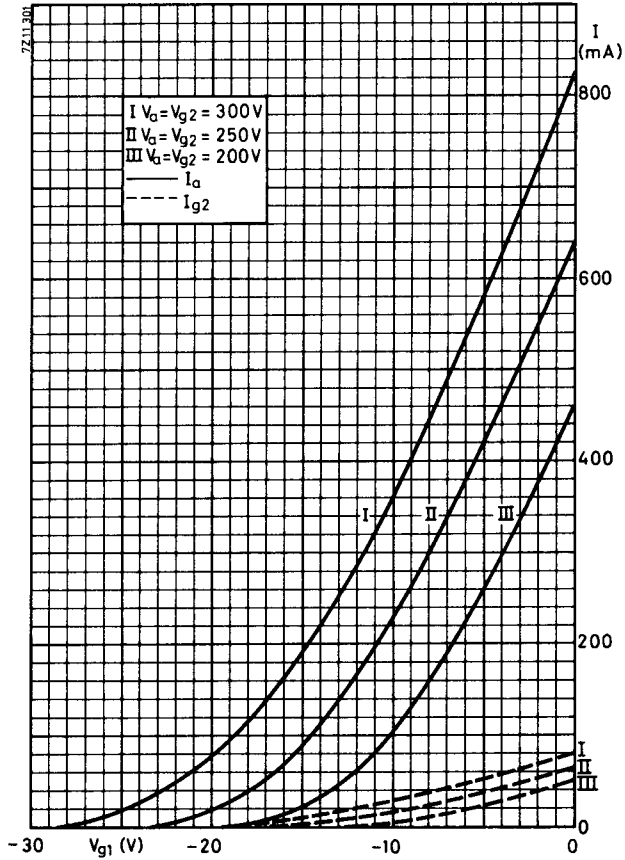
Class AB, two tubes in push-pull

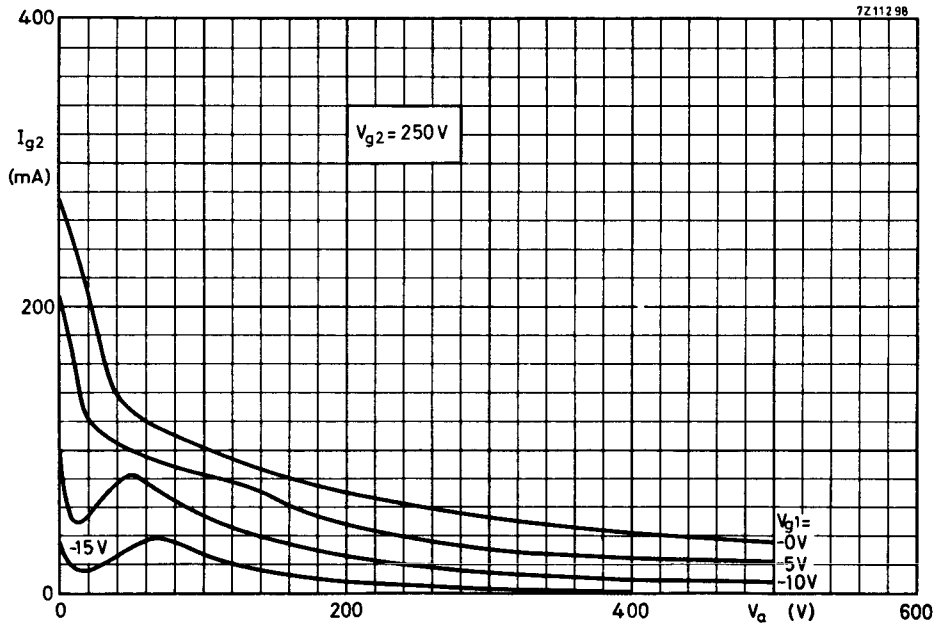
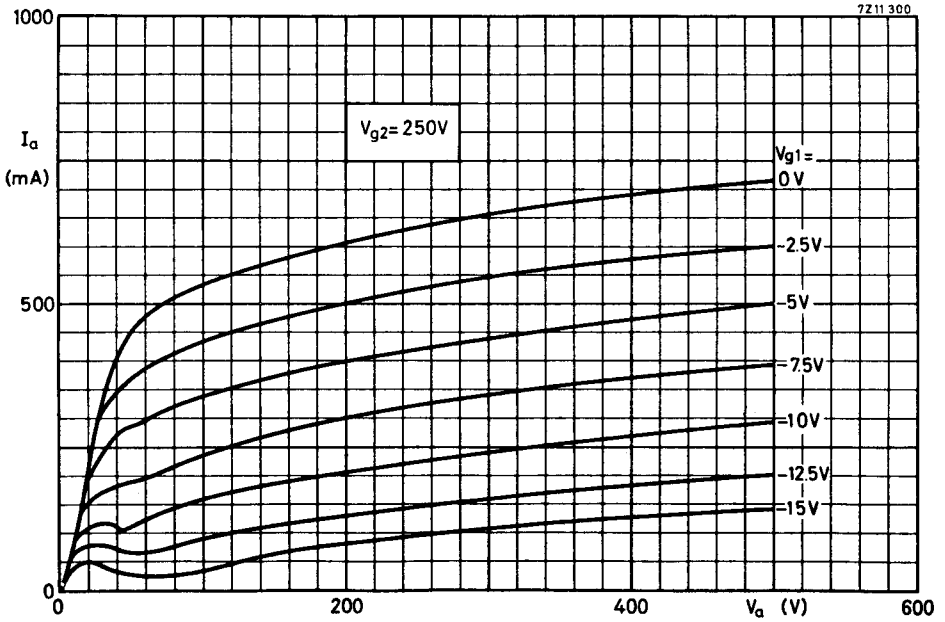
| | | | |
|---------------------------|--------------|-------|-----------------------|
| Anode supply voltage | V_{ba} | 265 | V |
| Grid No.2 supply voltage | V_{bg_2} | 265 | V |
| Common cathode resistor | R_k | 56 | Ω |
| Load resistance | $R_{aa\sim}$ | 2.4 | k Ω |
| Grid No.1 driving voltage | V_i | 0 | 12.2 V _{RMS} |
| Anode current | I_a | 2x115 | 2x125 mA |
| Grid No.2 current | I_{g_2} | 2x7.5 | 2x35.0 mA |
| Output power | W_o | 0 | 40 W |
| Distortion | d_{tot} | - | 5 % |

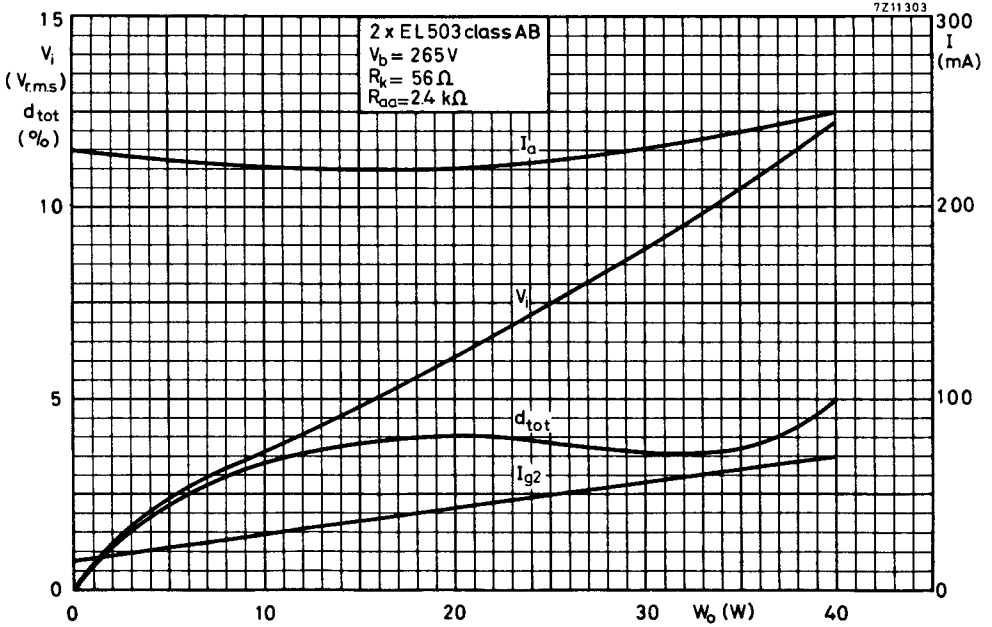
LIMITING VALUES (Design centre rating system)

| | | |
|------------------------------------|-----------|-------------|
| Anode voltage | V_{a0} | max. 550 V |
| | V_a | max. 300 V |
| Grid No.2 voltage | V_{g20} | max. 550 V |
| | V_{g2} | max. 300 V |
| Anode dissipation | W_a | see below |
| Grid No.2 dissipation | | |
| average | W_{g2} | see below |
| peak | W_{g2p} | see below |
| Cathode current | I_k | max. 200 mA |
| Grid No.1 resistor, automatic bias | R_{g1} | max. 0.5 MΩ |
| Cathode to heater voltage | V_{kf} | max. 100 V |









PHILIPS

Data handbook



Electronic
components
and materials

EL503

| page | sheet | date |
|-------------|--------------|-------------|
| 1 | 1 | 1970.08 |
| 2 | 2 | 1970.08 |
| 3 | 3 | 1970.08 |
| 4 | 4 | 1970.08 |
| 5 | 5 | 1972.01 |
| 6 | 6 | 1972.01 |
| 7 | FP | 1999.02.20 |