

## TUNING INDICATOR

Tuning indicator tube.

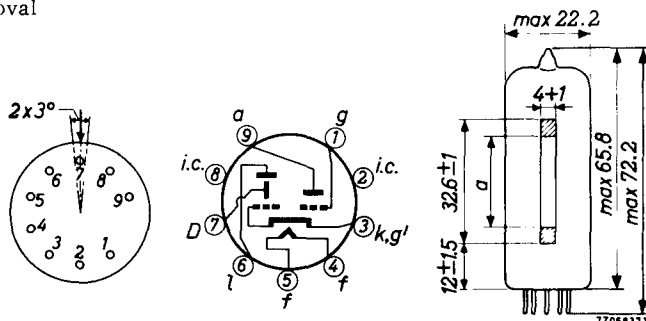
**HEATING:** Indirect by A.C. or D.C.; series or parallel supply

|                |       |     |    |
|----------------|-------|-----|----|
| Heater voltage | $V_f$ | 6.3 | V  |
| Heater current | $I_f$ | 300 | mA |

### DIMENSIONS AND CONNECTIONS

Dimensions in mm

Base: Noval



The arrow near pin 7 indicates the viewing direction.

### OPERATING CHARACTERISTICS (D connected to a)

|                                         |           |                 |                  |
|-----------------------------------------|-----------|-----------------|------------------|
| Supply voltage                          | $V_b$     | 250             | V                |
| Luminescent screen voltage              | $V_l$     | 250             | V                |
| Anode and deflection electrode resistor | $R_{a,D}$ | 100             | k $\Omega$       |
| Grid resistor                           | $R_g$     | 3               | M $\Omega$       |
| Grid supply voltage                     | $V_{bg}$  | 0   -10   -15   | V                |
| Anode and deflection electrode current  | $I_{a+D}$ | 2.0   0.5   0.2 | mA               |
| Luminescent screen current              | $I_l$     | 1.0   1.8   2.0 | mA               |
| Shadow length                           | $a$       | 21   0   -1.5   | mm <sup>1)</sup> |

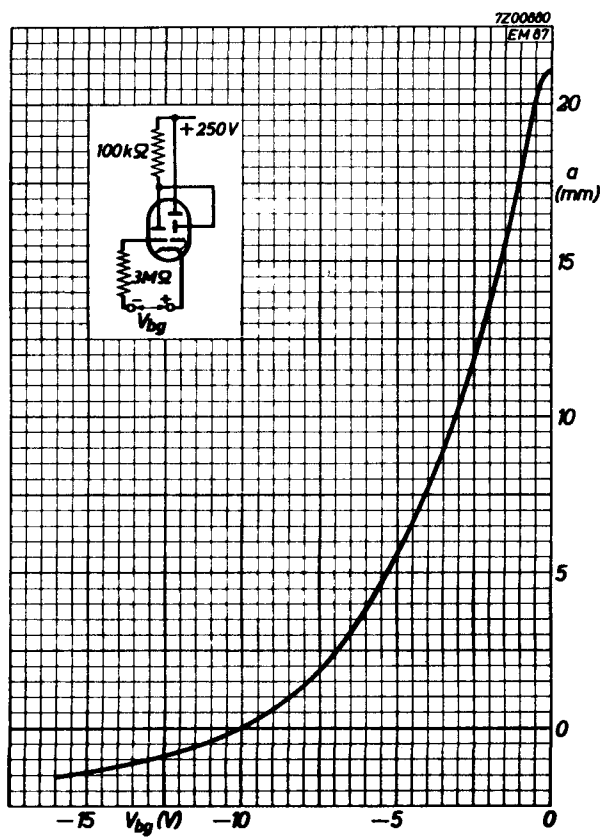
<sup>1)</sup> A negative value of "a" means overlapping:

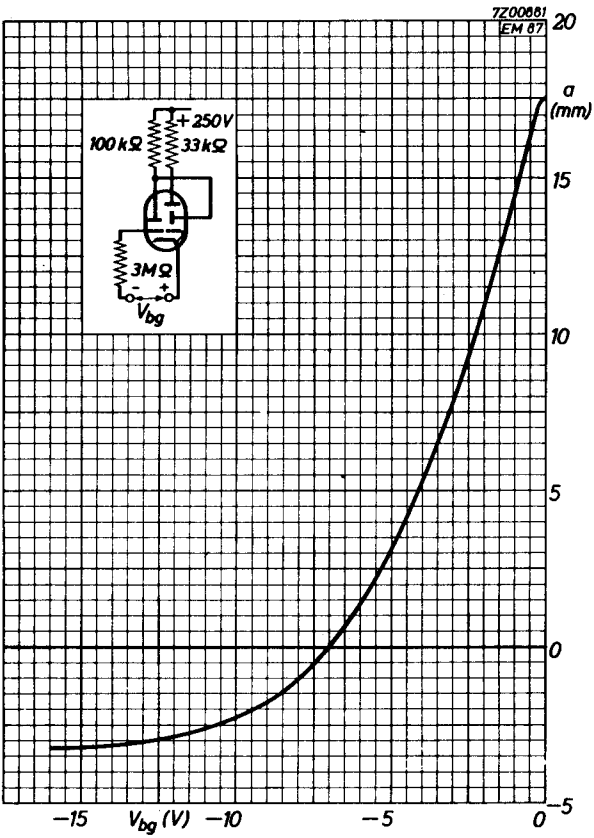
The grid bias for  $a = 0$  is reduced by decreasing  $V_l$ .

The measure of overlapping at  $V_g = -15$  V will then increase (see page 4).

**LIMITING VALUES** (Design centre rating system)

|                              |              |                      |
|------------------------------|--------------|----------------------|
| Anode voltage                | $V_{a0}$     | max. 550 V           |
|                              | $V_a$        | max. 300 V           |
| Anode dissipation            | $W_a$        | max. 0.6 W           |
| Deflection electrode voltage | $V_{D0}$     | max. 550 V           |
|                              | $V_D$        | max. 300 V           |
| Luminescent screen voltage   | $V_{\ell 0}$ | max. 550 V           |
|                              | $V_\ell$     | max. 300 V           |
|                              | $V_\ell$     | min. 170 V           |
| Grid resistor                | $R_g$        | max. 3 $M\Omega$     |
| Cathode current              | $I_k$        | max. 5 mA            |
| Cathode to heater voltage    | $V_{kf}$     | max. 250 V           |
| Bulb temperature             | $t_{bulb}$   | max. 120 $^{\circ}C$ |





# PHILIPS

## Data handbook



**Electronic  
components  
and materials**

**EM87**

| <b>page</b> | <b>sheet</b> | <b>date</b> |
|-------------|--------------|-------------|
| 1           | 1            | 1969.12     |
| 2           | 2            | 1869.01     |
| 3           | 3            | 1869.01     |
| 4           | 4            | 1869.01     |
| 5           | FP           | 1999.08.10  |