

Netzröhre für GW-Heizung  
indirekt geheizt  
Serienspeisung

DC-AC-heating  
indirectly heated  
connected in series

# TELEFUNKEN

**PCF 86**

Triode / Pentode

Vorläufige technische Daten · Tentative data

$I_f$	<b>300</b>	mA
$U_f$	ca. 8	V

Meßwerte · Measuring values

Triode

$U_a$	<b>100</b>	V
$U_g$	-3	V
$I_a$	<b>14</b>	mA
S	5,5	mA/V
$\mu$	17	

Pentode

$U_a$	<b>170</b>	V
$U_{g2}$	<b>150</b>	V
$U_{g1}$	-1,2	V
$I_a$	<b>10</b>	mA
$I_{g2}$	3,3	mA
S	12	mA/V
$R_i$	> 350	k $\Omega$
$I_{g2g1}$	70	
$r_{aeq}$	1	k $\Omega$

Betriebswerte · Typical operation

Triode als Oszillator

Triode as oscillator

$U_{ba}$	<b>190</b>	V
$U_{oszeff}$	4,5	V
$I_a$	<b>12</b>	mA
$R_g$	10	k $\Omega$
$S_{eff}$	3,5	mA/V
$R_a$	8,2	k $\Omega$
$c_e$ ( $I_a = 12$ mA)	3,5	pF

Pentode als Mischer

Pentode as mixer

$U_a$	<b>190</b>	V
$U_{bg2}$	190	V
$R_{g2}$	18	k $\Omega$
$R_{g1}$	100	k $\Omega$
$I_a$	<b>8,5</b>	mA
$I_{g2}$	2,7	mA
$U_{oszeff}$	2,3	V
$S_c$	4,5	mA/V
$g_{ic}$ (200 MHz) <sup>4)</sup>	0,3	ms
$c_e$ ( $I_a = 8,5$ mA)	9	pF

Grenzwerte · Maximum ratings

Triode

$U_{ao}$	<b>550</b>	V
$U_{ba}$	<b>250</b>	V
$U_a$	<b>125</b>	V
$N_a$	<b>1,5</b>	W
$I_k$	<b>15</b>	mA
$R_g$	<b>500</b>	k $\Omega$
$U_{fk}^{1)}$	<b>100</b>	V

Pentode

$U_{ao}$	<b>550</b>	V
$U_a$	<b>250</b>	V
$N_a$	<b>2</b>	W
$U_{g2o}$	<b>550</b>	V
$U_{bg2}$	<b>300</b>	V
$U_{g2}$	<b>150</b>	V
$N_{g2}$	<b>0,5</b>	W
$I_k$	<b>18</b>	mA
$R_{g1}^{2)}$	<b>500</b>	k $\Omega$
$R_{g1}^{3)}$	<b>1000</b>	k $\Omega$

1)  $U_{fk}^{eff} < 50$  V

2)  $U_{g1}^{fest}$  · fixed grid bias

3)  $U_{g1}^{autom.}$  · cathode grid bias

4) Stift 1 mit Stift 3 verbunden  
Pin 1 connected to pin 3



## Kapazitäten · Capacitances

### Triode

$C_e$	2,4	pF
$C_a$	1,1	pF
$C_{ga}$	2	pF

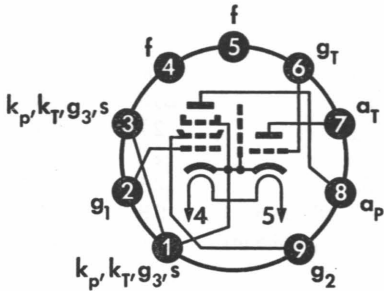
### Pentode

$C_e$	5,8	pF
$C_a$	3,5	pF
$C_{g1a}$	0,012	pF
$C_{g1/g2}$	1,7	pF

### Triode/Pentode

$C_{aP/aT}$	< 0,125	pF
$C_{aP/gT}$	< 0,03	pF
$C_{g1P/aT}$	< 0,01	pF
$C_{g1P/gT}$	< 0,01	pF

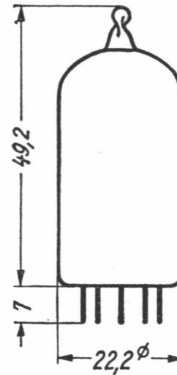
Sockelschaltbild  
Base connection



Pico 9 · Noval

max. Abmessungen  
max. dimensions

DIN 41 539, Nenngröße 40, Form A

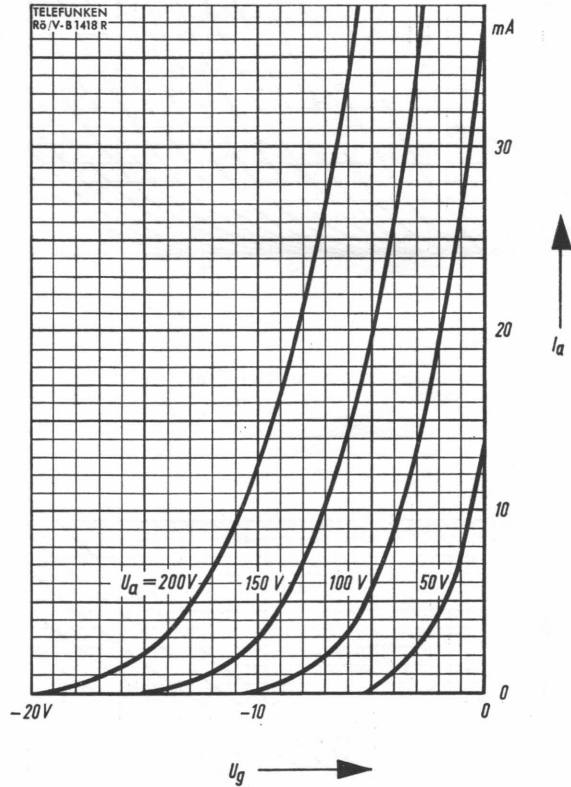


Gewicht · Weight  
max. 14 g

Wenn notwendig, muß gegen Herausfallen der Röhre aus der Fassung Vorsorge getroffen werden.

Special precautions must be taken to prevent the tube from becoming dislodged.

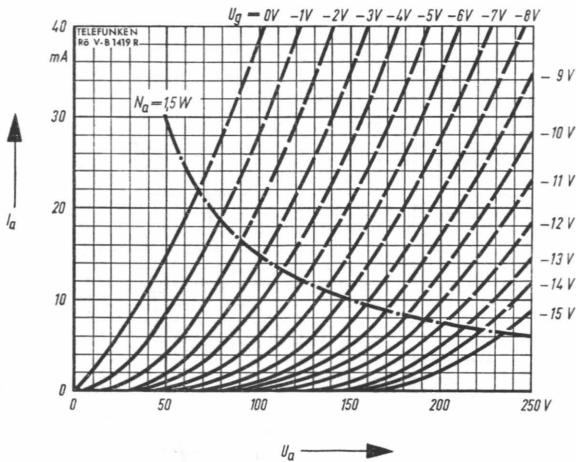




$$I_a = f(U_g)$$
$$U_a = \text{Parameter}$$

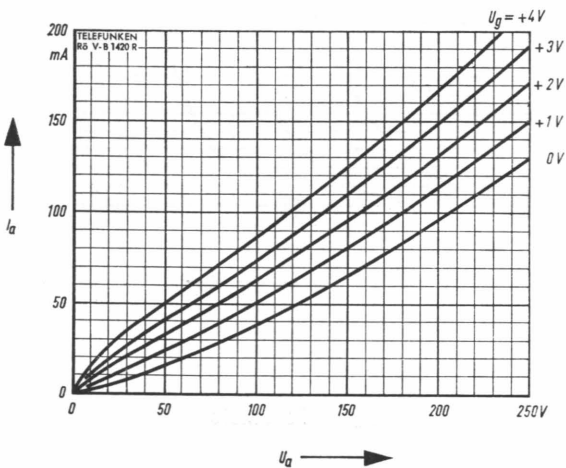
Triode





$$I_a = f(U_a)$$

$U_g = \text{Parameter}$

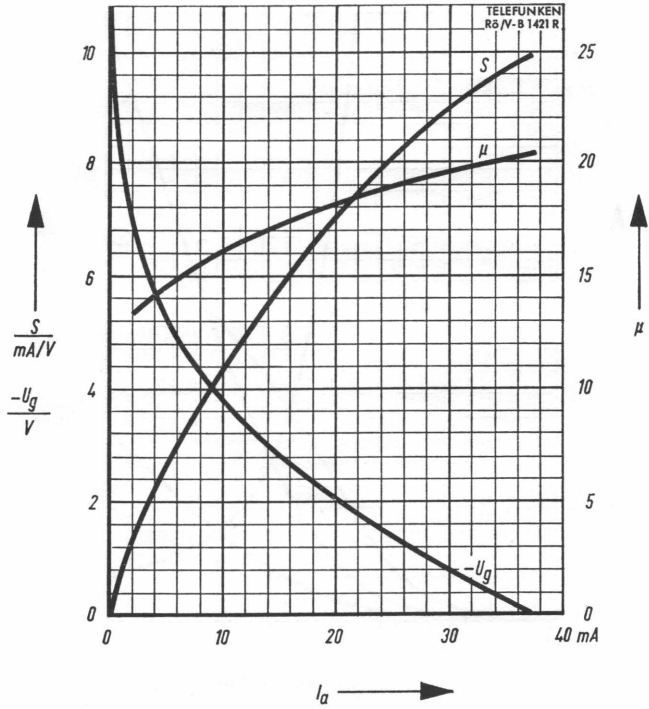


$$I_a = f(U_a)$$

$U_g = \text{Parameter}$

**Triode**



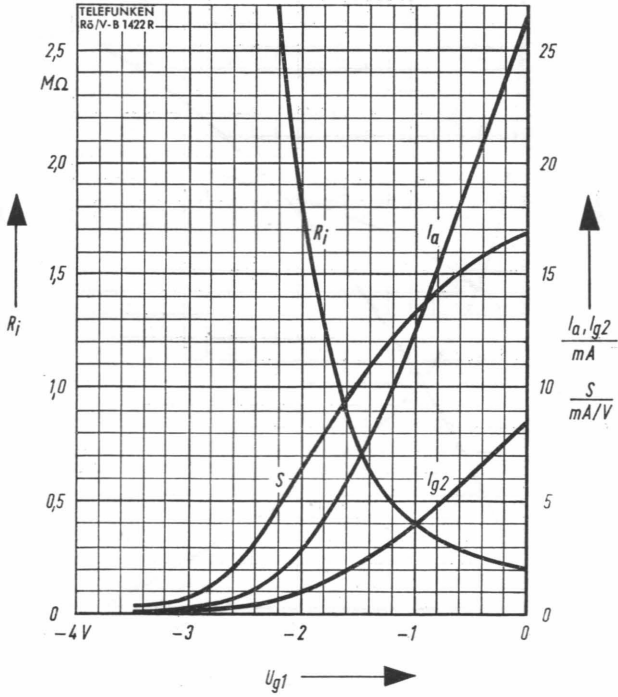


$$U_g, S, \mu = f(I_a)$$

$$U_a = 100 \text{ V}$$

Triode

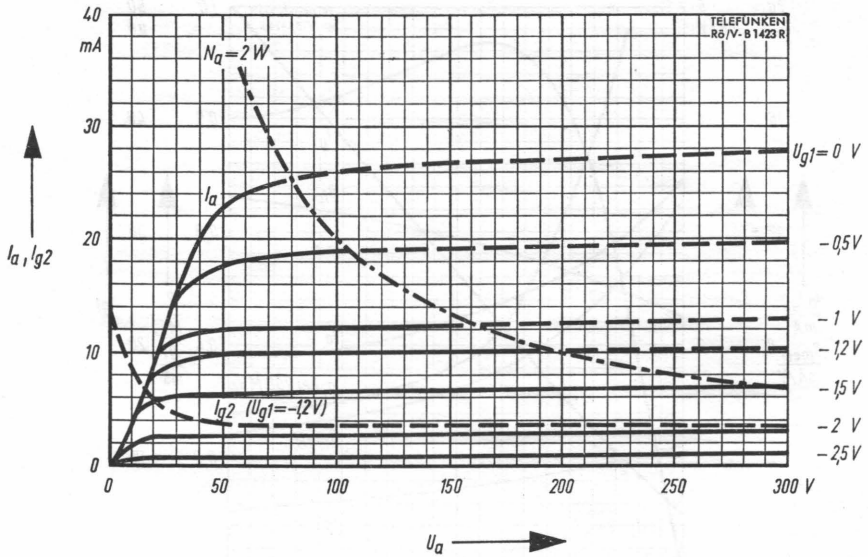




$I_a, I_{g2}, S, R_i = f(U_{g1})$   
 $U_a = 170 \text{ V}$   
 $U_{g2} = 150 \text{ V}$

Pentode





$$I_a, I_{g2} = f(U_a)$$

$$U_{g2} = 150 V$$

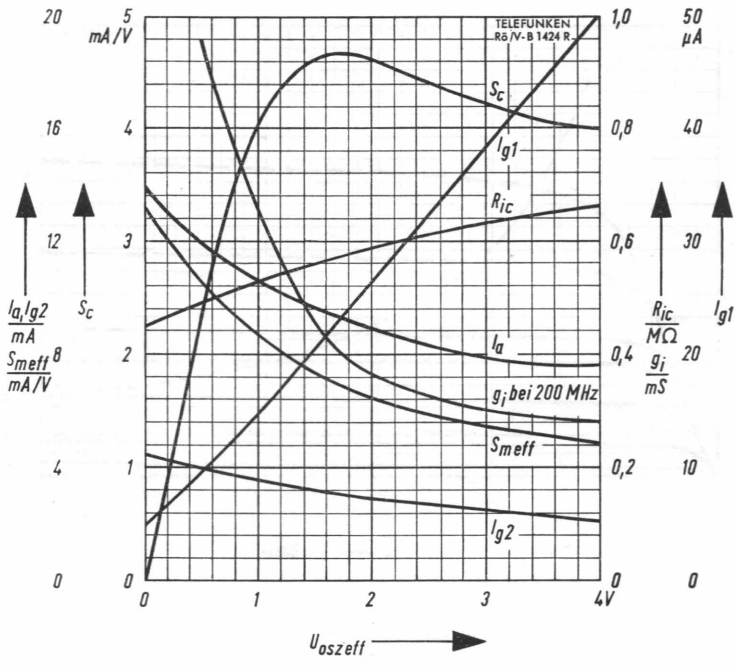
$$U_{g1} = \text{Parameter}$$

—  $I_a$     - - -  $I_{g2}$

Pentode



# TELEFUNKEN



$I_a, I_{g2}, I_{g1}, S_c, S_{meff}, R_{ic}, g_i = f(U_{osz})$   
 $U_a = U_{bg2} = 190 V$   
 $R_{g2} = 18 k\Omega$   
 $R_{g1} = 100 k\Omega$

Pentode

