

Netzröhre für GW-Heizung  
indirekt geheizt  
Serienspeisung

DC-AC-Heating  
indirectly heated  
connected in series

# TELEFUNKEN

**PCL 84**

Triode/Video-Endpentode  
Triode/Video-power pentode

$U_f$  ca. 15 V  
 $I_f$  **300** mA

**Meßwerte** · Measuring values

Triode			Pentode				
$U_a$	<b>200</b>	V	$U_a$	<b>170</b>	<b>200</b>	<b>220</b>	V
$U_g$	-1,7	V	$U_{g2}$	<b>170</b>	<b>200</b>	<b>220</b>	V
$I_a$	3	mA	$U_{g1}$	-2,1	-2,9	-3,4	V
S	4	mA/V	$I_a$	<b>18</b>	<b>18</b>	<b>18</b>	mA
$\mu$	65		$I_{g2}$	3	3	3	mA
			S	11	10,4	10	mA/V
			$R_i$	> 100	> 130	> 150	k $\Omega$
			$\mu_{g2g1}$	ca. 36	ca. 36	ca. 36	

**Betriebswerte** · Typical operation

Pentode als Video-Endröhre · Pentode as video power tube

$U_b$	<b>170</b>	<b>200</b>	<b>220</b>	V
$U_{g2}$	<b>170</b>	<b>200</b>	<b>220</b>	V
$U_{g1}$	-2	-2,8	-3,3	V
$R_a$	3	3	3	k $\Omega$
$I_a$	<b>18</b>	<b>18</b>	<b>18</b>	mA
$I_{g2}$	3,2	3,1	3,1	mA
S	10,4	10	9,7	mA/V

**Grenzwerte** · Maximum ratings

Triode			Pentode		
$U_{ao}$	$\pm 500$	V	$U_{ao}$	<b>550</b>	V
$U_a$	$\pm 250$	V	$U_a$	<b>250</b>	V
$U_{asp}$ ( $I_a < 0,1$ mA) <sup>1)</sup>	<b>600</b>	V	$N_a$	<b>4</b>	W
$N_a$	<b>1</b>	W	$U_{g2o}$	<b>550</b>	V
$I_k$	<b>12</b>	mA	$U_{g2}$	<b>250</b>	V
$R_{g2}$ <sup>2)</sup>	<b>1</b>	M $\Omega$	$N_{g2}$	<b>1,7</b>	W
$R_{g3}$ <sup>3)</sup>	<b>3</b>	M $\Omega$	$I_k$	<b>40</b>	mA
$U_{ge}$ ( $I_g \leq +0,3$ $\mu$ A)	-1,3	V	$R_{g12}$	<b>1</b>	M $\Omega$
$U_{fk-}$	<b>150</b>	V	$R_{g13}$	<b>2</b>	M $\Omega$
$U_{fk+}$	<b>200 = +150</b>	V <sub>eff</sub>	$U_{g1e}$ ( $I_{g1} \leq +0,3$ $\mu$ A)	-1,3	V
$R_{fk}$	<b>20</b>	k $\Omega$	$U_{fk}$	<b>200</b>	V
			$R_{fk}$	<b>20</b>	k $\Omega$

1) Impulsdauer max. 18% einer Periode,  $t_{max}$  18  $\mu$ s  
Pulse duration max. 18% per period,  $t_{max}$  18  $\mu$ s

2)  $U_{g\text{ fest}}$  · fixed grid bias

3)  $U_{g\text{ autom.}}$  · cathode grid bias



## Kapazitäten · Capacitances

### Triode

$c_e$	4,2	pF
$c_a$	2,3	pF
$c_{ga}$	2,7	pF
$c_{gf}$	< 0,1	pF

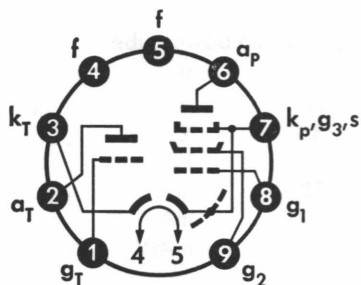
### Pentode

$c_e$	9	pF
$c_a$	4,2	pF
$c_{g1a}$	< 0,1	pF

### Triode/Pentode

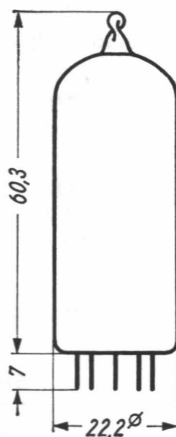
$c_{aT/g1P}$	< 0,01	pF
$c_{gT/g1P}$	< 0,01	pF

Sockelschaltbild  
Base connection



Pico 9 · Noval

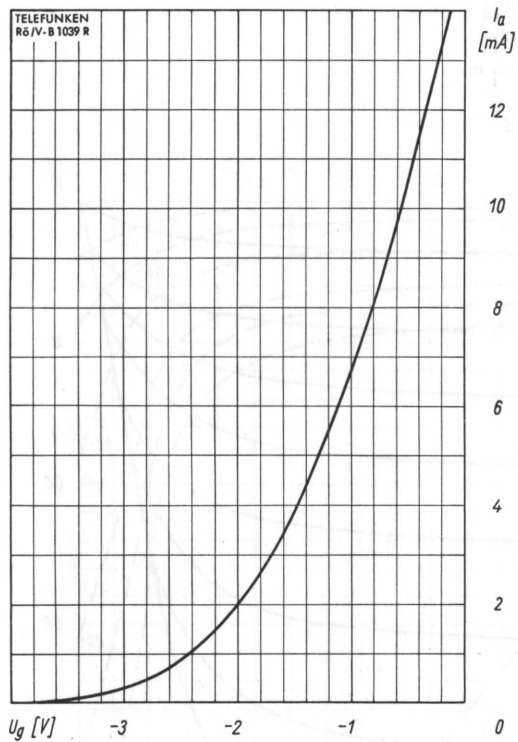
max. Abmessungen  
max. dimensions  
DIN 41539, Nenngröße 50, Form A



Gewicht · Weight  
max. 18 g

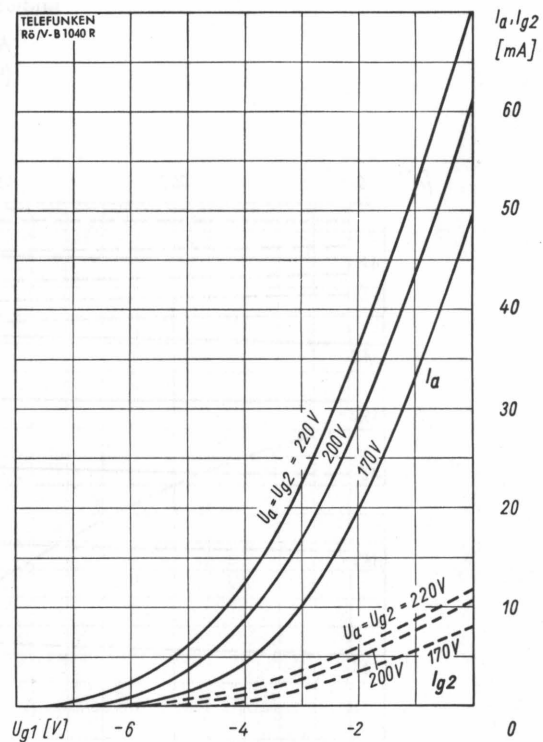
Wenn notwendig, muß gegen Herausfallen der Röhre aus der Fassung Vorsorge getroffen werden.  
Special precaution must be taken to prevent the tube from becoming dislodged.



**Triode**

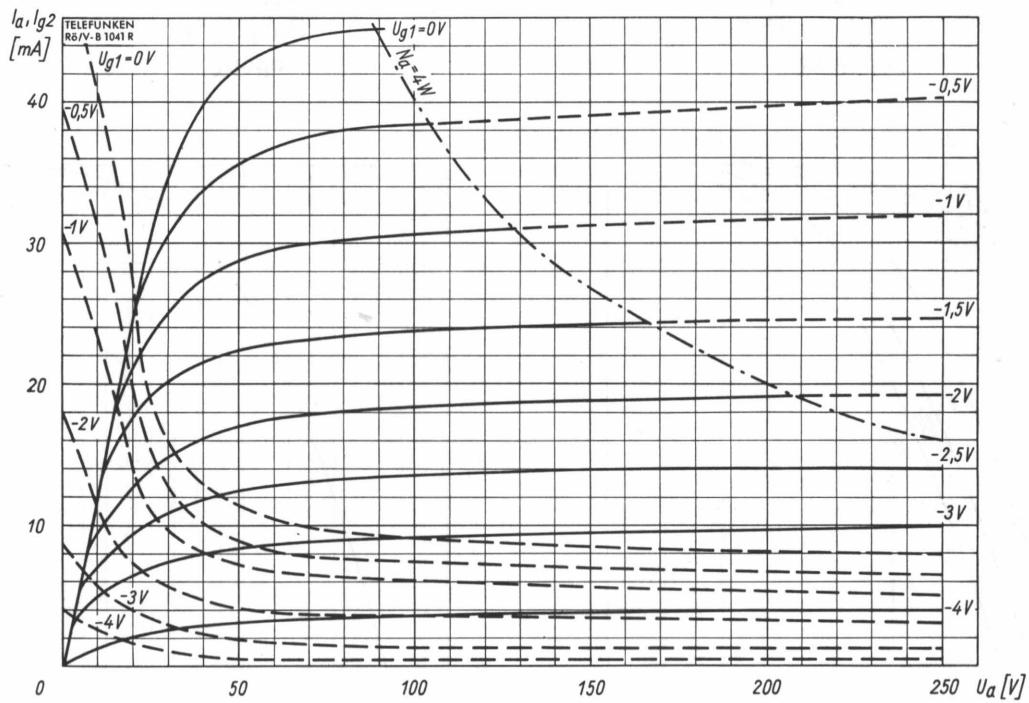
$$I_a = f(U_g)$$

$$U_a = 200 \text{ V}$$

**Pentode**

$$I_a, I_{g2} = f(U_{g1})$$

$$U_a = \text{Parameter}$$



Pentode

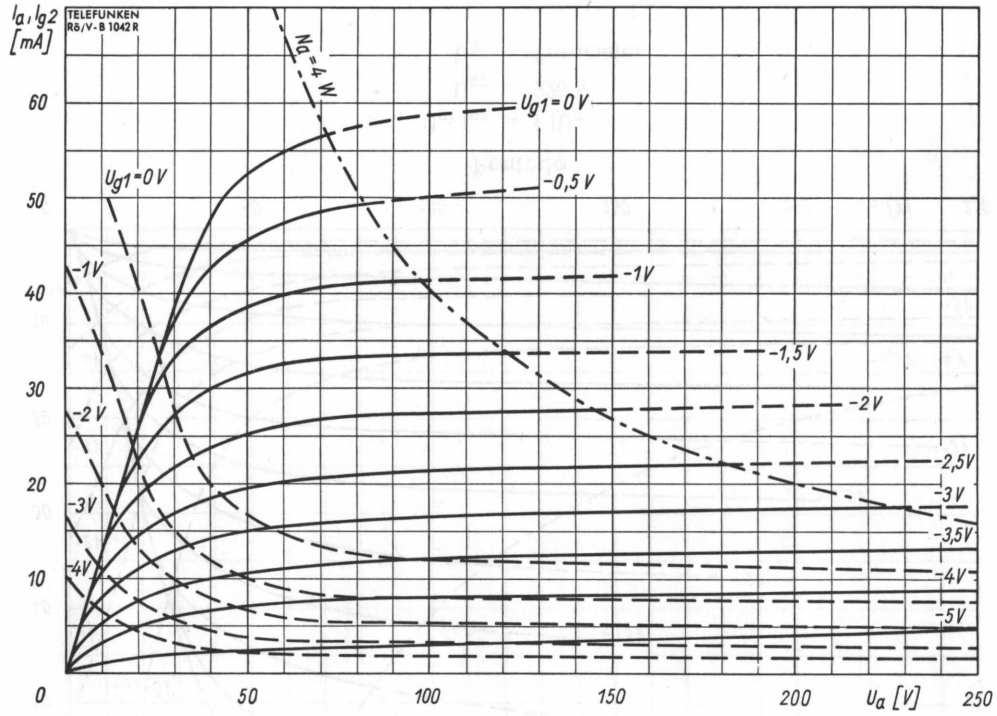
$I_a, I_{g2} = f(U_a)$

$U_{g2} = 170 V$

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

—  $I_a$     - - - -  $I_{g2}$





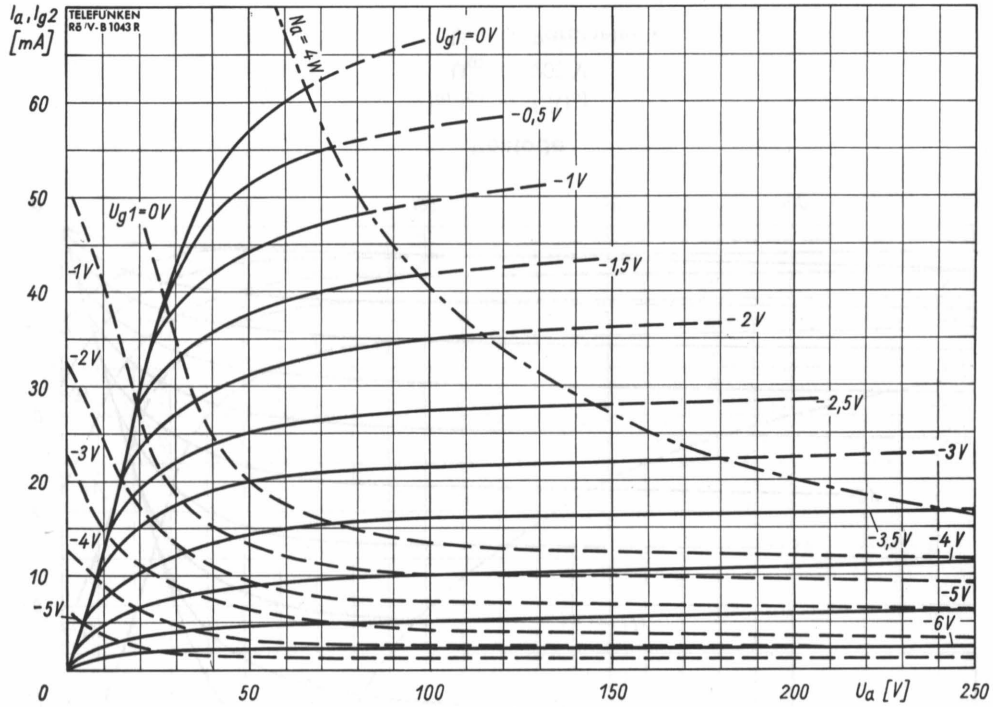
### Pentode

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

$$U_{g2} = 200 V$$

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

$$\text{— } I_a \quad \text{--- } I_{g2}$$



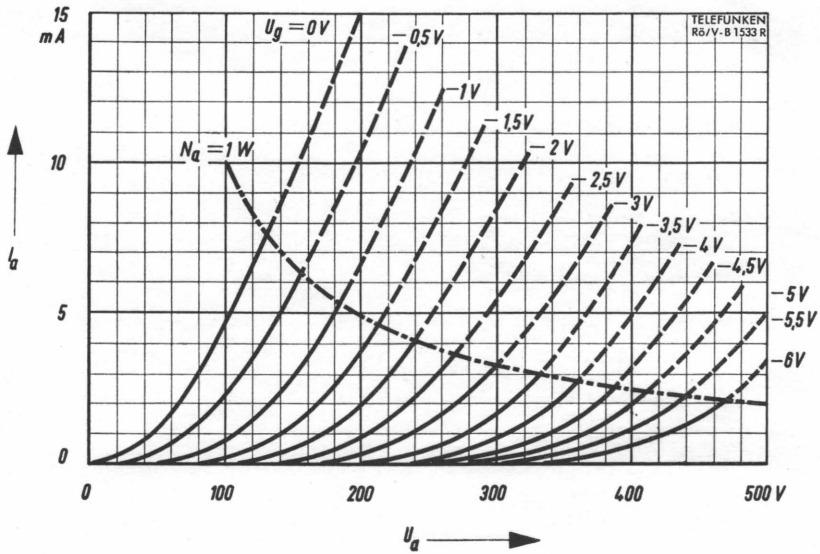
Pentode

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

$$U_{g2} = 220 \text{ V}$$

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

—  $I_a$       - - -  $I_{g2}$



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

Triode

