

Netzröhre für GW-Heizung  
 Indirekt geheizt  
 Parallel- oder Serienspelsung  
 DC-AC-Heating  
 Indirectly heated  
 connected in parallel or series

# TELEFUNKEN

**ECC 81**

HF-Doppeltriode mit  
 getrennten Kathoden  
 RF-Twin-Triode with  
 separate cathodes

Heizfäden parallel geschaltet	$U_f$	<b>6,3</b>	V
Filaments connected in parallel	$I_f$	<b>300</b>	mA
Heizfäden in Serie geschaltet	$U_f$	<b>12,6</b>	V
Filaments connected in series	$I_f$	<b>150</b>	mA

Normierte Anheizzeit · Normalize heating-up time

## Meß- und Betriebswerte

Measuring values and typical operation

per System

$U_a$	<b>100</b>	<b>170</b>	<b>200</b>	<b>250</b>	V
$U_g$	-1 <sup>1)</sup>	-1 <sup>1)</sup>	-1 <sup>1)</sup>	-2	V
$I_a$	<b>3</b>	<b>8,5</b>	<b>11,5</b>	<b>10</b>	mA
S	3,75	5,9	6,7	5,5	mA/V
$\mu$	62	66	70	60	
$R_i$	16,5	11	10,5	11	k $\Omega$

<sup>1)</sup> Bei dieser Einstellung kann Gitterstrom fließen. Wenn das unzulässig ist, empfiehlt sich die Einstellung mit  $U_g = -1,5$  V.

With these operating conditions grid current is possible, if this is not admissible, a grid bias of -1.5 V must be taken.



## Grenzwerte · Maximum ratings

## Kapazitäten · Capacitances

per System

$U_{ao}$	<b>550</b>	V
$U_a$	<b>300</b>	V
$N_a$	<b>2,5</b>	W
$I_k$	<b>15</b>	mA
$U_g$	<b>-50</b>	V
$R_g$ ( $U_{g\text{ autom.}}$ )	<b>1</b>	M $\Omega$
$U_{ge}$ ( $I_g \leq +0,3 \mu A$ )	<b>-1,3</b>	V
$U_{f/k\text{ eff}}$	<b>90</b>	V
$R_{f/k}$	<b>20</b>	k $\Omega$

	System I	System II	
$C_e$	2,5	2,5	pF
$C_a$	0,45	0,35	pF
$C_{g/a}$	1,8	1,8	pF
$C_{f/k}$	2,4	2,4	pF
$C_{g/f}$	< 0,17	< 0,17	pF

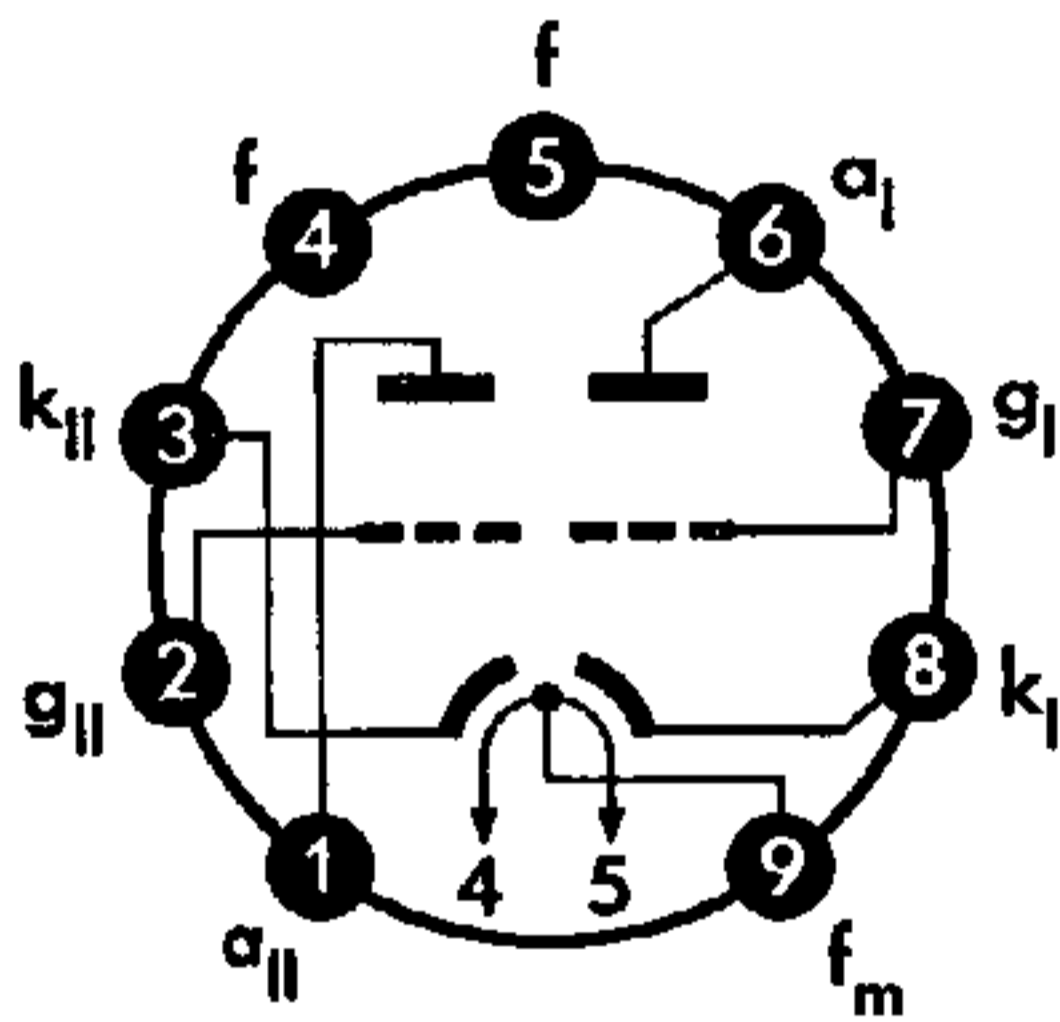
Zwischen System I und System II  
Between system I and system II

$C_{aI/aII}$	$\leq$	0,4	pF
$C_{gI/gII}$	$\leq$	0,005	pF
$C_{gI/aII}$	<	0,06	pF
$C_{gII/aI}$	<	0,06	pF

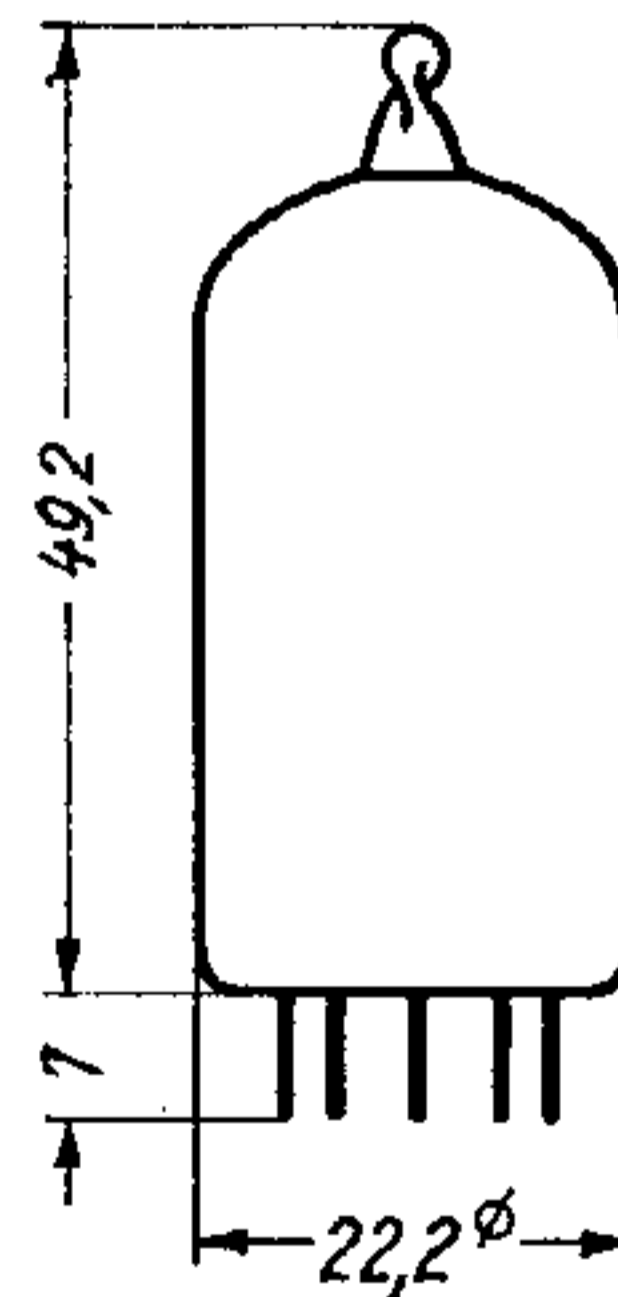
Sockelschaltbild  
Base connection

max. Abmessungen  
max. dimensions

DIN 41 539, Nenngröße 40, Form A



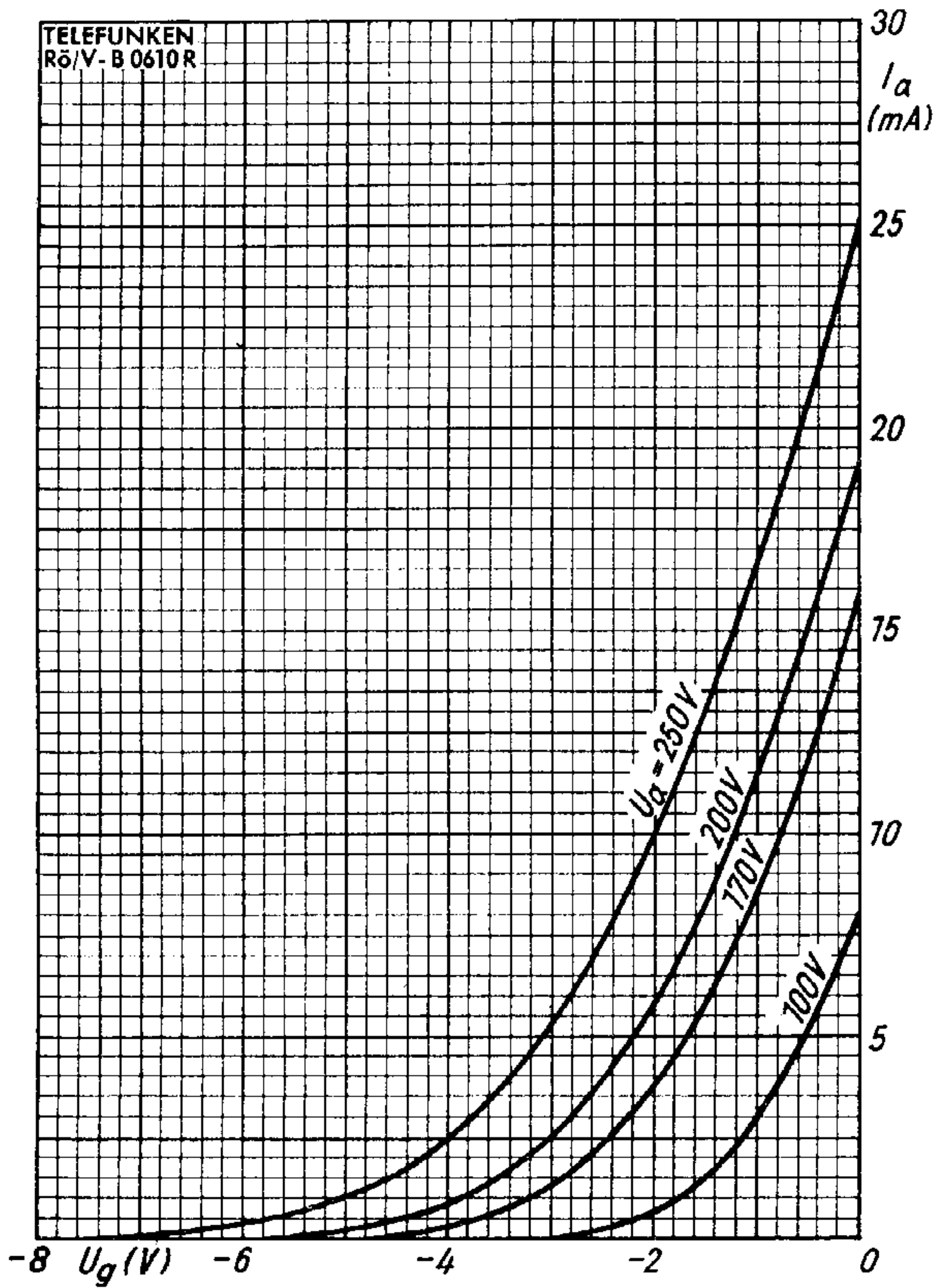
Pico 9 · Noval



Gewicht · Weight  
max. 14 g

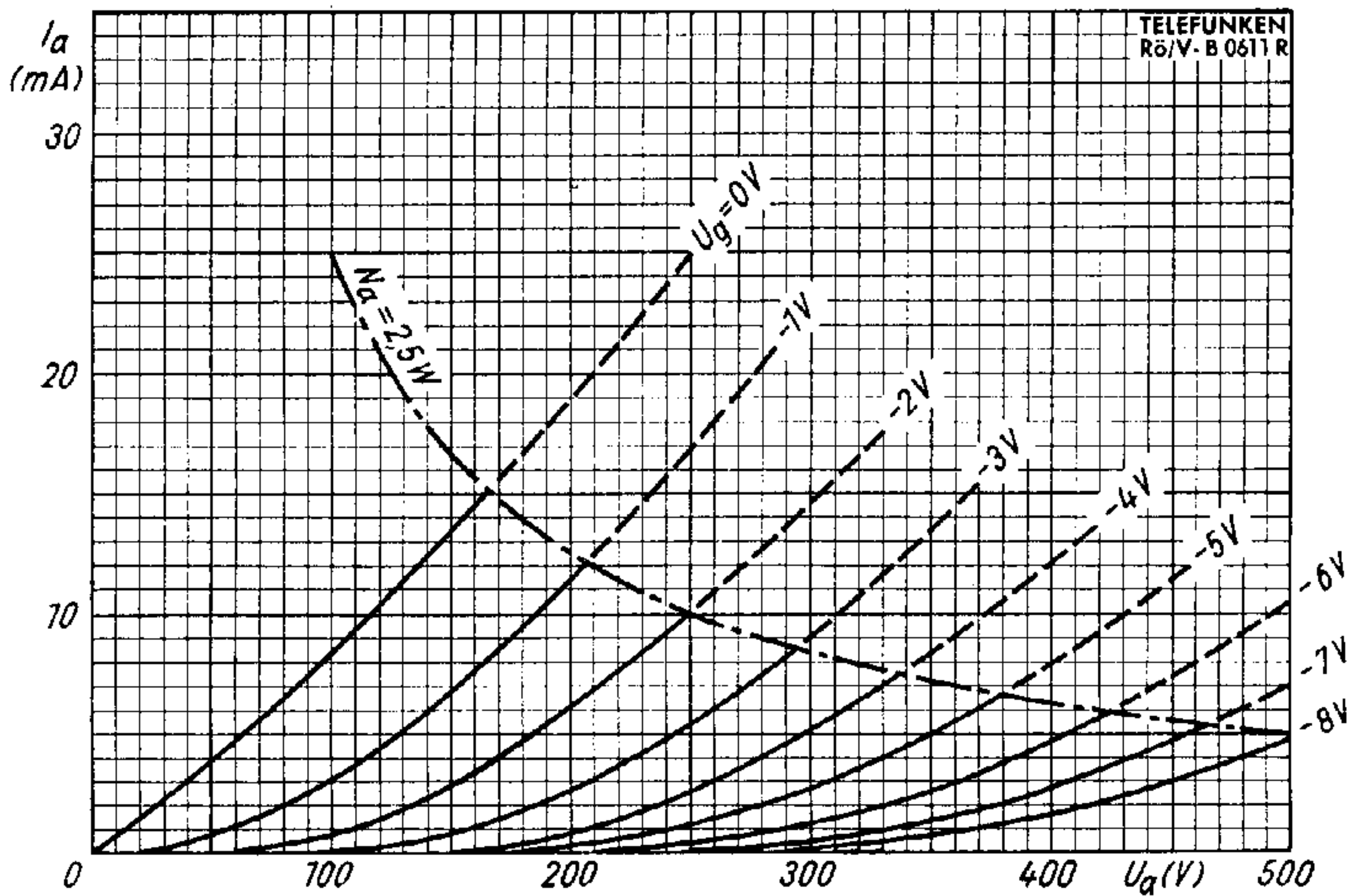
Wenn notwendig, muß gegen Herausfallen der Röhre aus der Fassung Vorsorge getroffen werden.  
Special precautions must be taken to prevent the tube from becoming dislodged.





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

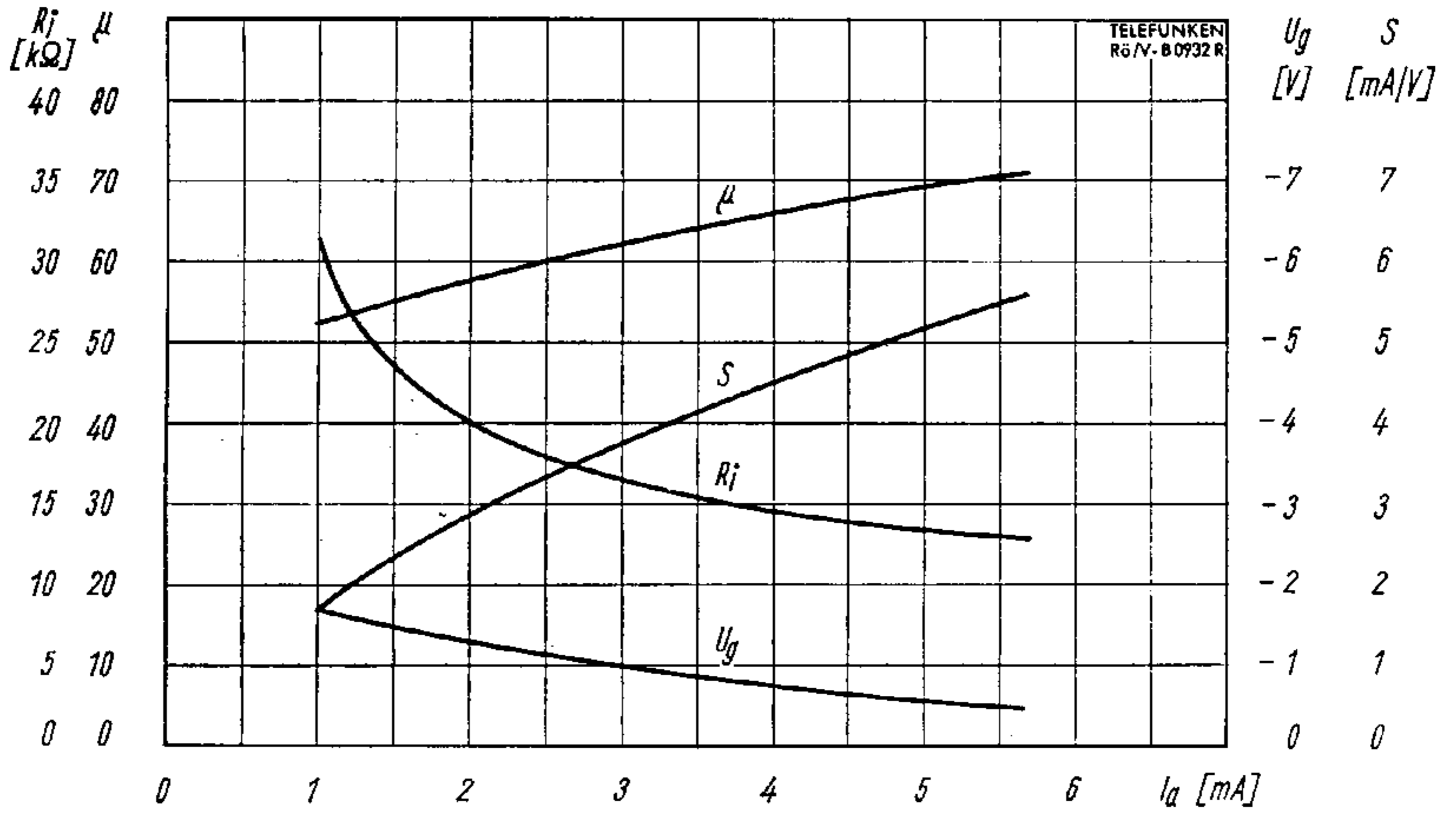




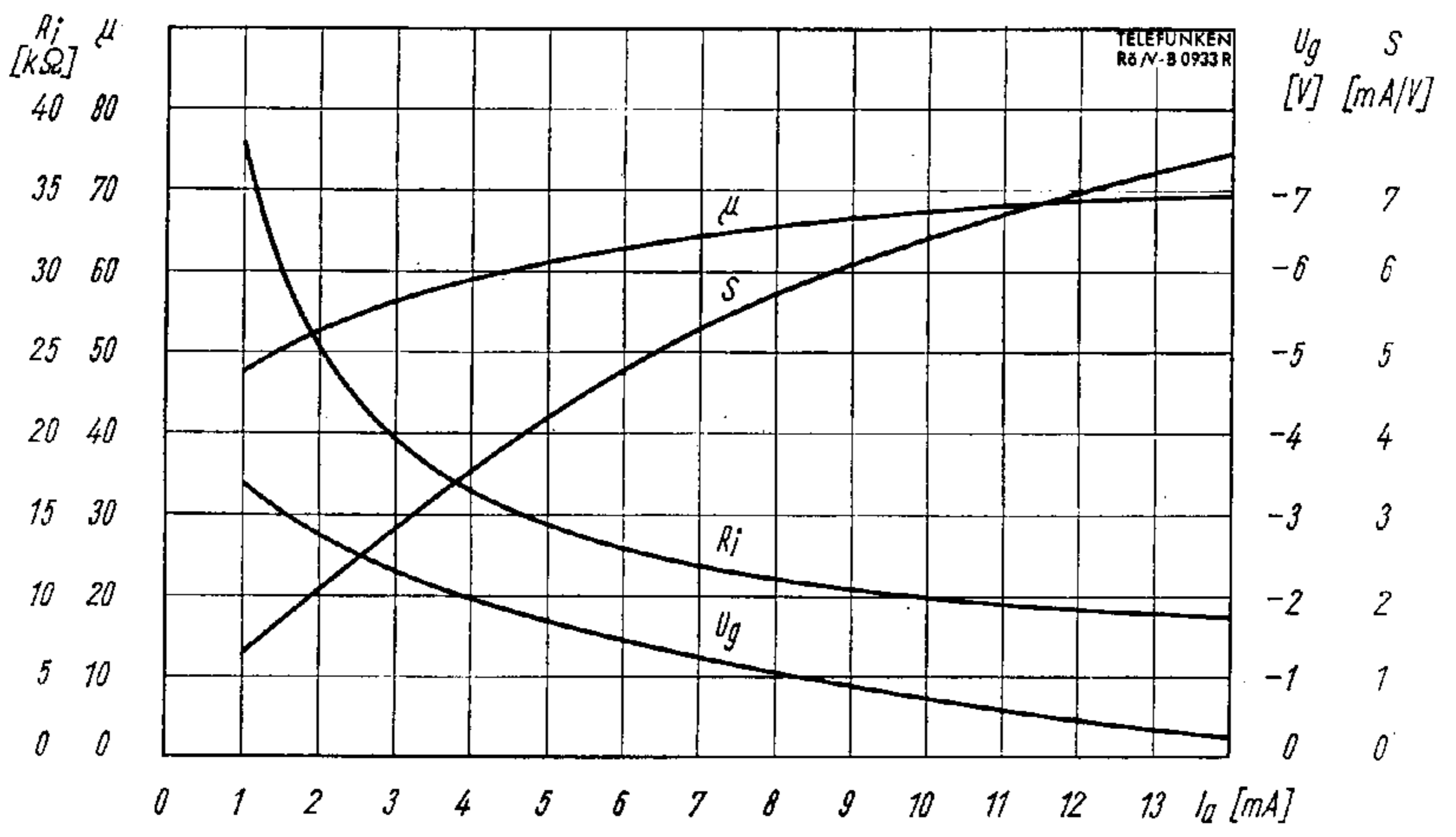
$$I_a = f(U_a)$$

$$U_g = \text{Parameter}$$



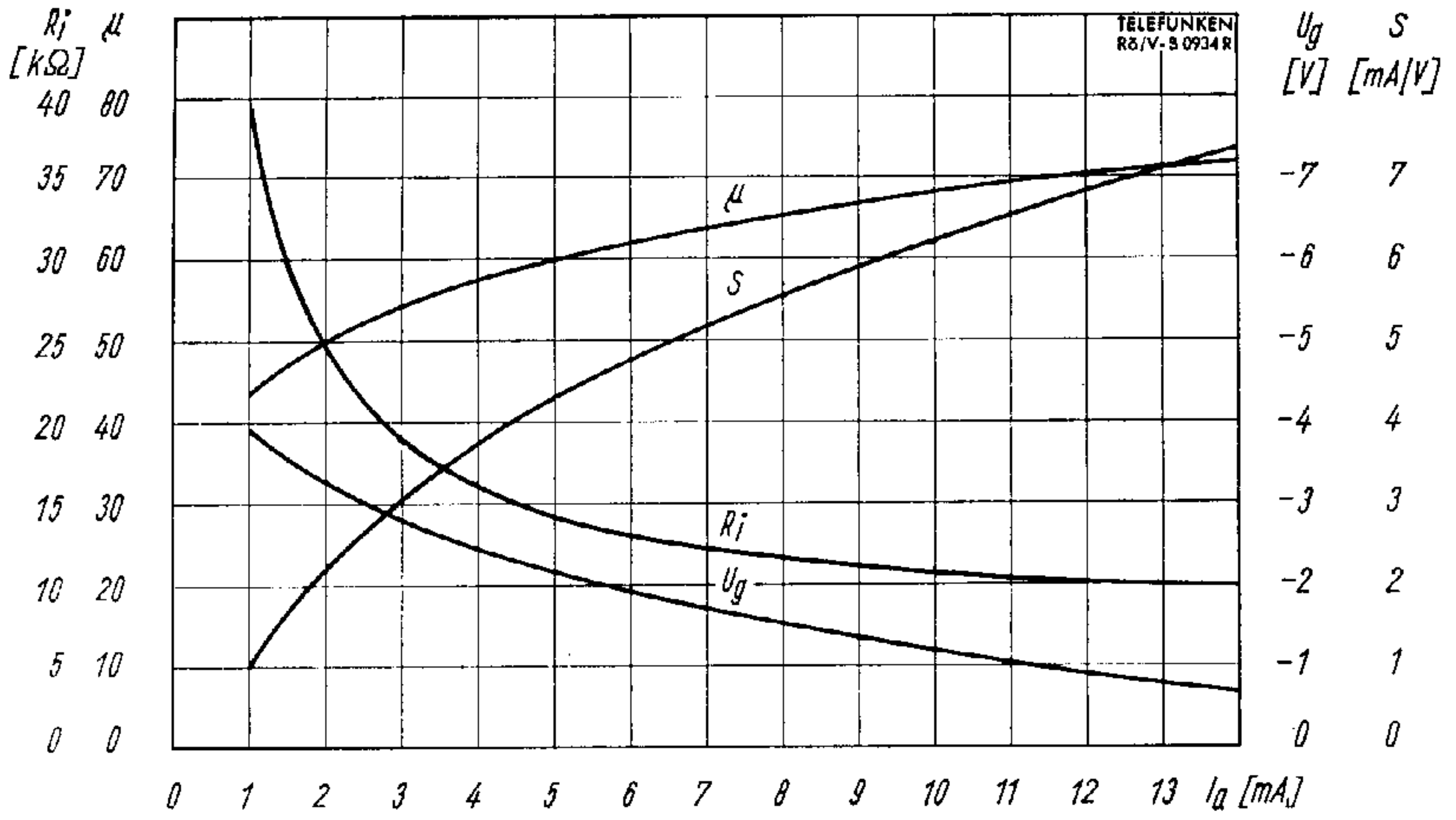


$S, \mu, R_i, U_g = f(I_a)$   
 $U_a = 100 \text{ V}$

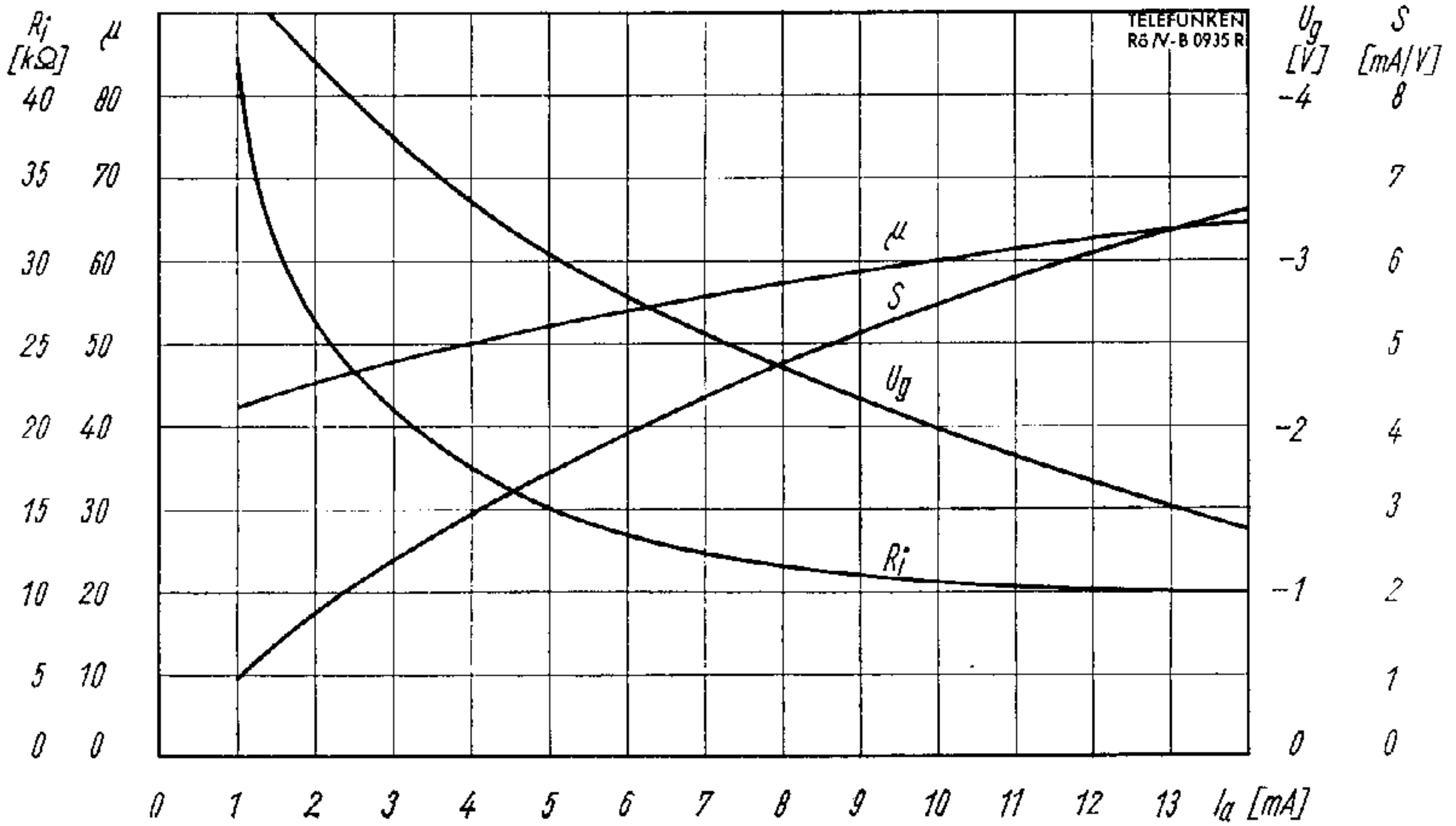


$S, \mu, R_i, U_g = f(I_a)$   
 $U_a = 170 \text{ V}$



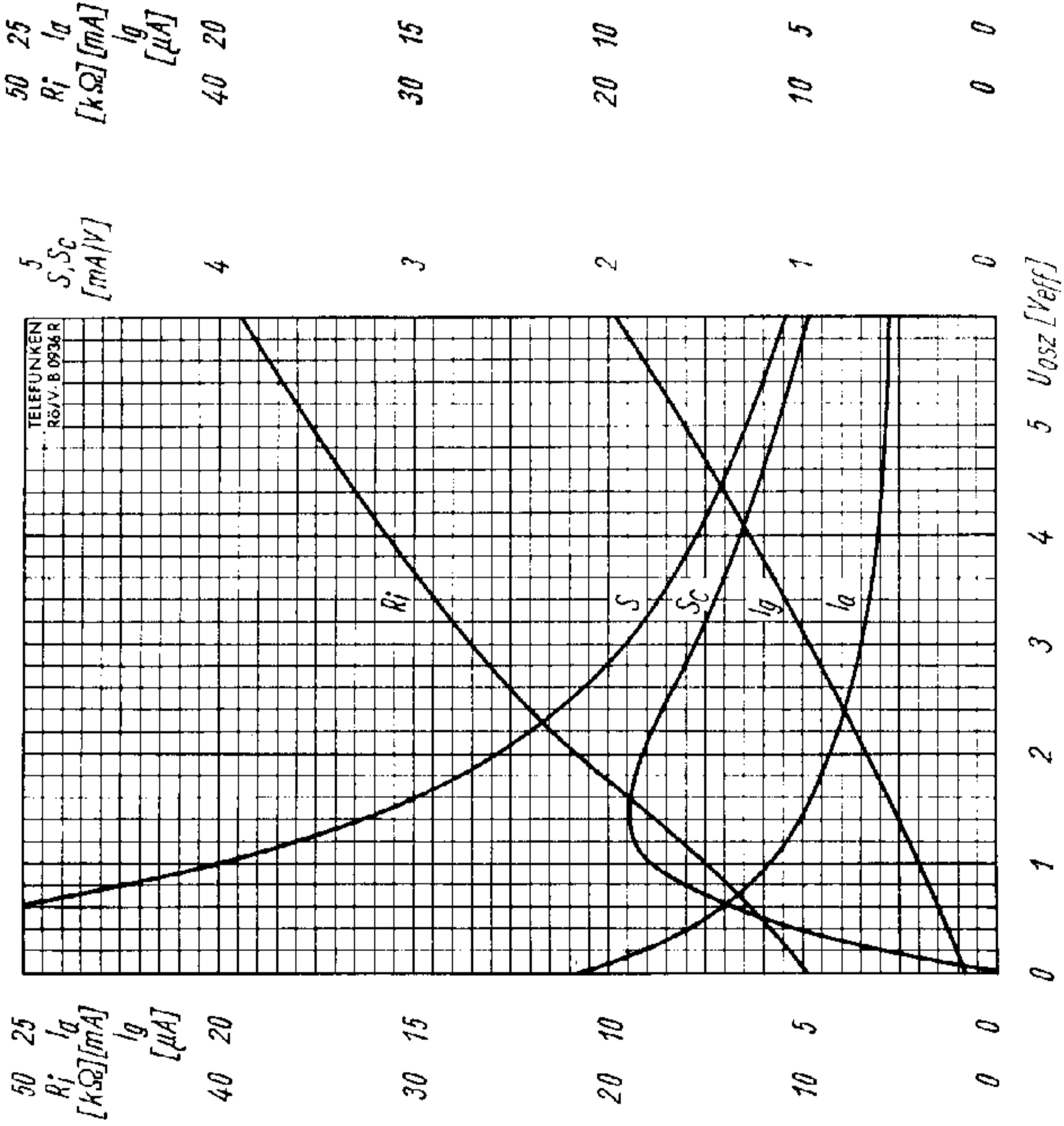
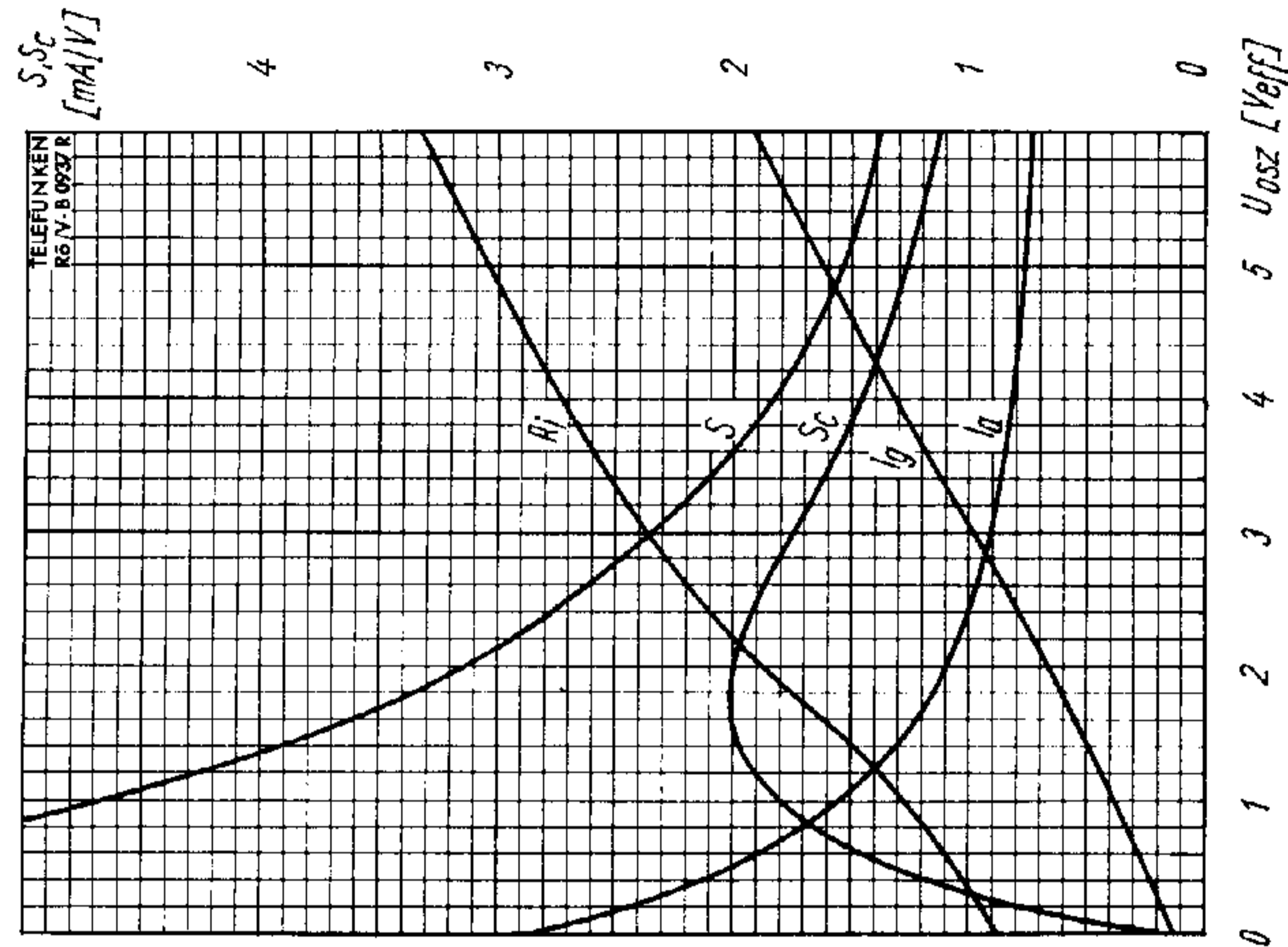


$S, \mu, R_i, U_g = f(I_a)$   
 $U_a = 200 \text{ V}$



$S, \mu, R_i, U_g = f(I_a)$   
 $U_a = 250 \text{ V}$





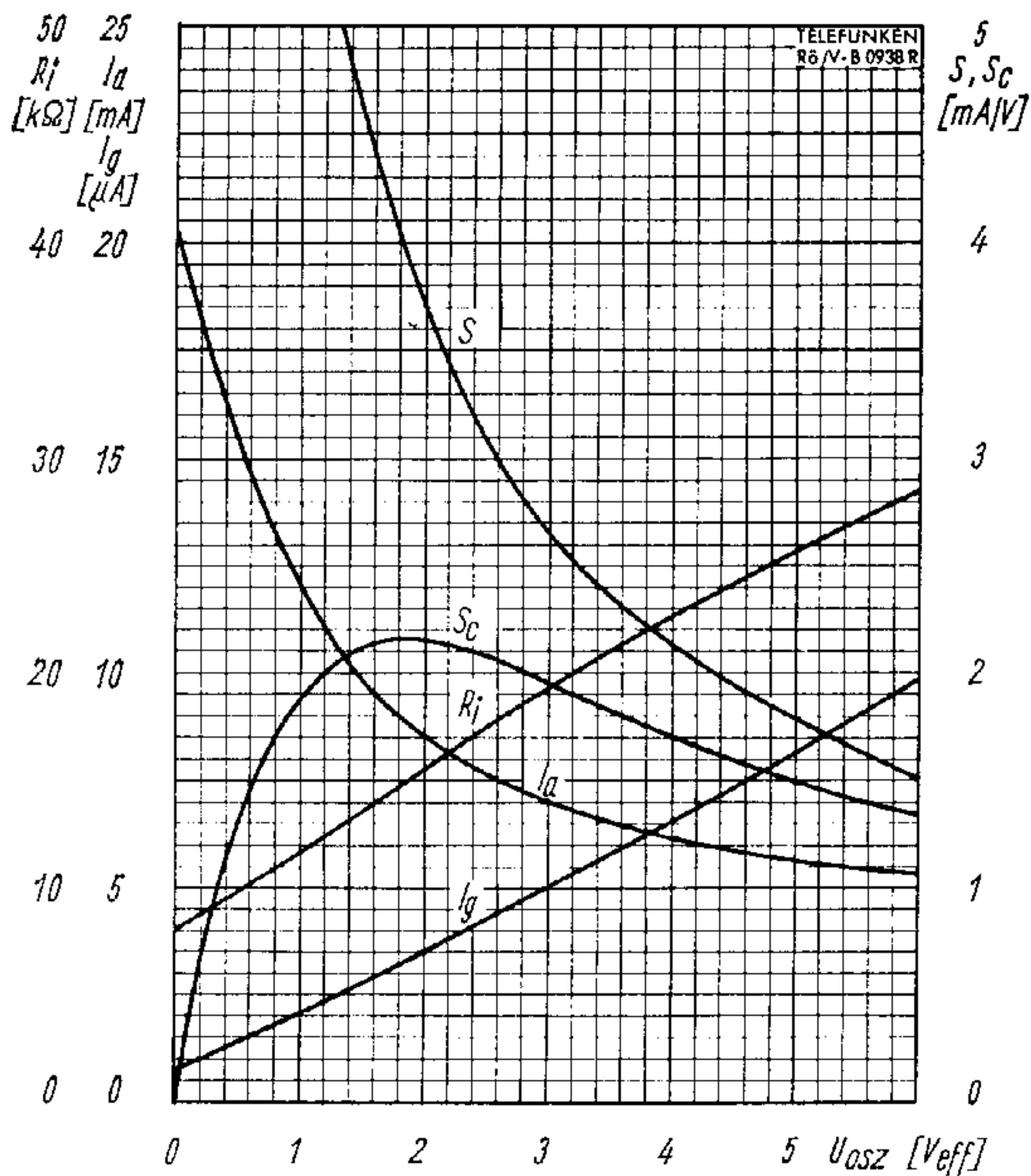
**Betriebswerte als Mischröhre · Typical Operation as Mixer**

$R_i, I_a, S, S_c = f(U_{osz})$   
 $U_a = 170\text{ V}$   
 $R_g = 1\text{ M}\Omega$

$R_i, I_a, S, S_c = f(U_{osz})$   
 $U_a = 200\text{ V}$   
 $R_g = 1\text{ M}\Omega$

$S$  = dynamische Steilheit für ein ZF-Signal von 100 mV  
 $S$  = mutual conductance by 100 mV IF-signal





### Betriebswerte als Mischröhre • Typical Operation as Mixer

$$R_i, I_a, S, S_c = f(U_{osz})$$

$$U_a = 250 \text{ V}$$

$$R_g = 1 \text{ M}\Omega$$

$S$  = dynamische Steilheit für ein ZF-Signal von 100 mV

$S$  = mutual conductance by 100 mV IF-signal

