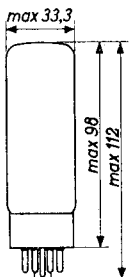
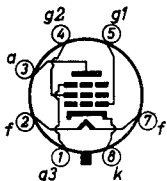


**OUTPUT PENTODE  
PENTHODE DE SORTIE  
ENDPENTODE**

Heating: indirect by A.C. or D.C.;  
parallel supply  
Chauffage: indirect par C.A. ou C.C.;  
alimentation en parallèle  
Heizung: indirekt durch Wechsel-  
oder Gleichstrom;  
Parallelspeisung

$$\frac{V_f}{I_f} = \frac{6,3 \text{ V}}{1,5 \text{ A}}$$

Dimensions in mm  
Dimensions en mm  
Abmessungen in mm



Base  
Culot OCTAL  
Sockel

Socket  
Support 5903/13  
Fassung

Capacitances  
Capacités  
Kapazitäten

$C_{g1} = 15,2 \text{ pF}$   
 $C_a = 8,4 \text{ pF}$   
 $C_{ag1} < 1,1 \text{ pF}$   
 $C_{g1f} < 1,0 \text{ pF}$   
 $C_{kf} = 10 \text{ pF}$

**Remark** When using a sinusoidal input signal care should be taken not to exceed the maximum admissible  $W_{g2}$ .

**Observation** En cas d'un signal d'entrée sinusoïdal il faut faire attention à ne pas dépasser la valeur maximum admissible de  $W_{g2}$ .

**Bemerkung** Bei Verwendung eines sinusförmigen Eingangssignales muss darauf geachtet werden dass der maximal zulässige Wert von  $W_{g2}$  nicht überschritten wird.

Operating characteristics class A  
 Caractéristiques d'utilisation classe A  
 Betriebsdaten Klasse A

V <sub>b</sub>	=	265	265	V
V <sub>a</sub>	=	250	250	V
R <sub>g2</sub>	=	2	0	kΩ
V <sub>g3</sub>	=	0	0	V
V <sub>g1</sub>	=	-14,5	-13,5	V
I <sub>a</sub>	=	70	100	mA
I <sub>g2</sub>	=	10	14,9	mA
S	=	9,0	11	mA/V
μg <sub>2g1</sub>	=	11	11	
R <sub>i</sub>	=	18	15	kΩ
R <sub>a</sub>	=	3,0	2,0	kΩ
V <sub>i</sub>	=	9,3	8,7	V <sub>eff</sub>
W <sub>o</sub>	=	8	11	W
dtot	=	10	10	%
V <sub>i</sub> (W <sub>o</sub> = 50 mW)	=	0,65	0,5	V <sub>eff</sub>

Operating characteristics class B  
 Caractéristiques d'utilisation classe B  
 Betriebsdaten Klasse B

R <sub>g2</sub>	=	1000		470		Ω <sup>1)</sup>		
V <sub>g1</sub>	=	-38		-32		V		
V <sub>g3</sub>	=	0		0		V		
V <sub>i</sub>	=	0	27	27	0	22,7	22,7	V <sub>eff</sub>
R <sub>aa</sub>	=	-	3,4	4,0	-	2,8	3,8	kΩ
V <sub>b</sub>	=	425	425	400	375	375	350	V
V <sub>a</sub>	=	420	400	375	370	350	325	V
I <sub>a</sub>	=	2x30	2x120	2x100	2x35	2x120	2x93	mA
I <sub>g2</sub>	=	2x4,4	2x25	2x25	2x4,7	2x25	2x25	mA
W <sub>o</sub>	=	0	55	45	0	44	36	W
dtot	=	-	5	6	-	5	6	%

1) Common screen grid resistor; non decoupled  
 Résistance de grille-écran commune; ne pas découplée  
 Gemeinsamer Schirmgitterwiderstand; nicht entkoppelt

$R_{g2}$	=	750		750		$\Omega$ <sup>1)</sup>		
$V_{g1}$	=	-36		-39		V		
$V_{g3}$	=	0		0		V		
$V_i$	=	0	25,8	25,8	0	23,4	23,4	$V_{eff}$
$R_{aa}$	=	-	4	5	-	11	11	k $\Omega$
$V_{ba}$	=	500	500	475	800	800	750	V
$V_a$	=	495	475	450	795	775	725	V
$V_{bg2}$	=	400	400	375	400	400	375	V
$I_a$	=	2x30	2x125	2x102	2x25	2x91	2x84	mA
$I_{g2}$	=	2x4	2x25	2x25	2x3	2x19	2x19	mA
$W_o$	=	0	70	58	0	100	90	W
$dt_{tot}$	=	-	5	6	-	5	6	%

Operating conditions class AB

Caractéristiques d'utilisation classe AB

Betriebsdaten Klasse AB

$R_{aa}$	=	3,4		k $\Omega$
$R_{g2}$	=	470		$\Omega$ <sup>1)</sup>
$R_k$	=	130		$\Omega$
$V_{g3}$	=	0		V
$V_i$	=	0	21	$V_{eff}$
$V_b$	=	375		375 V
$V_a + V_{Rk}$	=	355		350 V
$I_a$	=	2x75		2x95 mA
$I_{g2}$	=	2x11,5		2x22,5 mA
$W_o$	=	0		35 W
$dt_{tot}$	=	-		5 %

1) Common screen grid resistor; non decoupled  
 Résistance de grille-écran commune; ne pas découplée  
 Gemeinsamer Schirmgitterwiderstand; nicht entkoppelt

Operating conditions in triode connection  
 ( $g_2$  connected to anode)  
 Caractéristiques d'utilisation en connexion triode  
 ( $g_2$  relié à l'anode)  
 Betriebsdaten in Triodenschaltung  
 ( $g_2$  verbunden mit Anode)

	Class A Classe A Klasse A	Class AB Classe AB Klasse AB	
$V_b$	= 375	400	V
$V_{g3}$	= 0	0	V
$R_k$	= 370	220	$\Omega$
$R_a$	= 3	-	k $\Omega$
$R_{aa}$	= -	5	k $\Omega$
$V_i$	= 18,9	0 — 22	$V_{eff}$
$I_a$	= 70	2x65 — 2x71	mA
$W_o$	= 6	0 — 16,5	W
$d$	= 8	- — 3	%
$V_i(W_o=50mW)$	= 1,7		$V_{eff}$

Limiting values  
 Caractéristiques limites  
 Grenzdaten

$V_{a0}$	= max. 2000 V
$V_a$	= max. 800 V
$W_a (V_i = 0)$	= max. 25 W
$W_a (V_i > 0)$	= max. 27,5 W
$V_{g20}$	= max. 800 V
$V_{g2}$	= max. 425 V
$W_{g2}$	= max. 8 W
$I_k$	= max. 150 mA
$V_{g1} (I_{g1} = +0,3 \mu A)$	= max. -1,3 V
$R_{g1} (A, AB)$	= max. 0,7 M $\Omega$
$R_{g1} (B)$	= max. 0,5 M $\Omega$
$V_{fk}$	= max. 100 V
$R_{fk}$	= max. 20 k $\Omega$

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1.  $V_a = 250V; V_{g2} = 250V; V_{g3} = 0V$
2.  $V_a = 350V; V_{g2} = 375V; V_{g3} = 0V$
3.  $V_a = 400V; V_{g2} = 425V; V_{g3} = 0V$

—  $I_a$   
- - -  $I_{g2}$

250  
 $I (mA)$

200

150

100

50

0

$V_{g1} (V)$  -60

-40

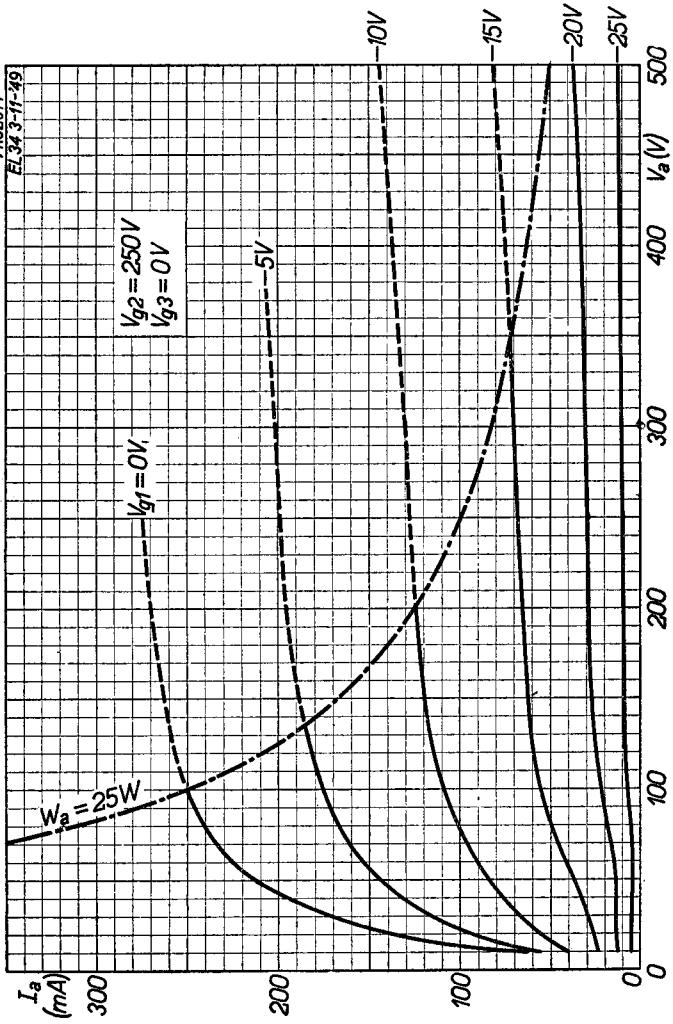
-20

0

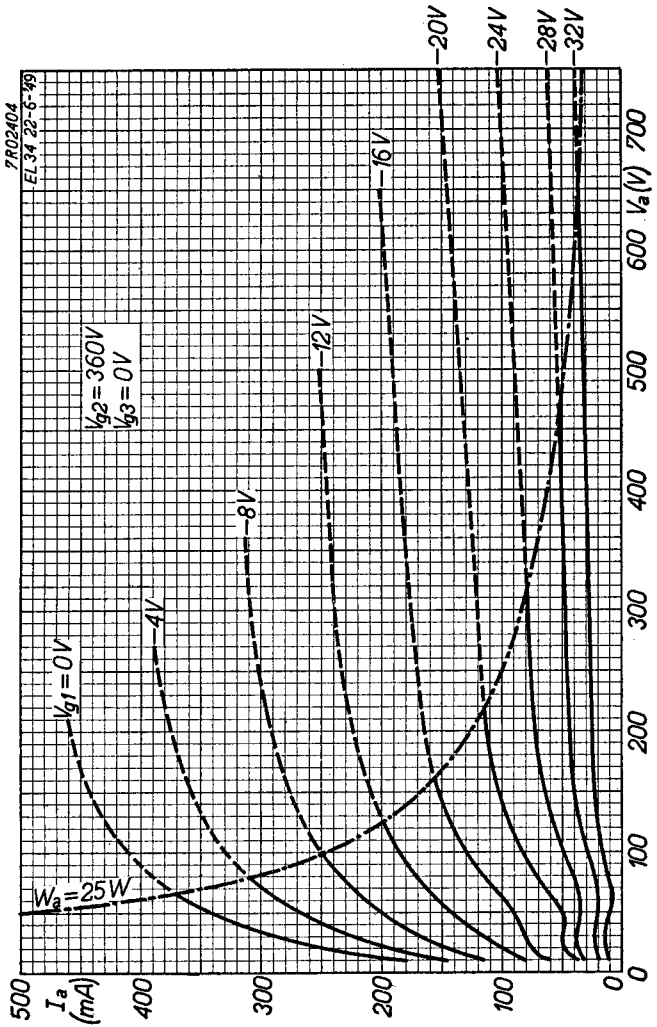
**EL 34**

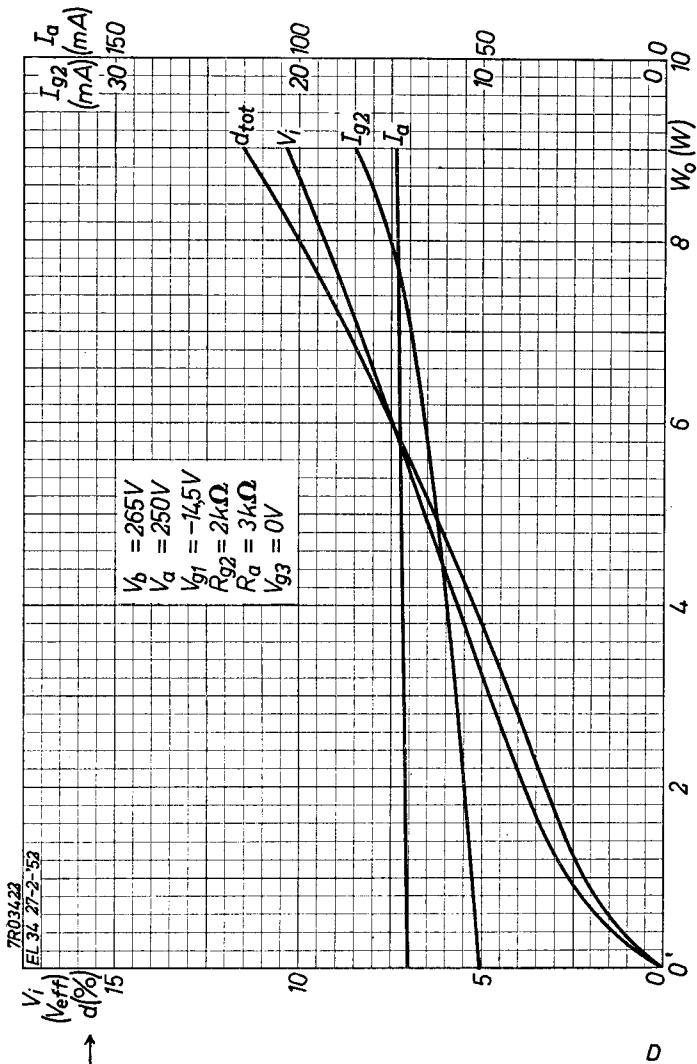
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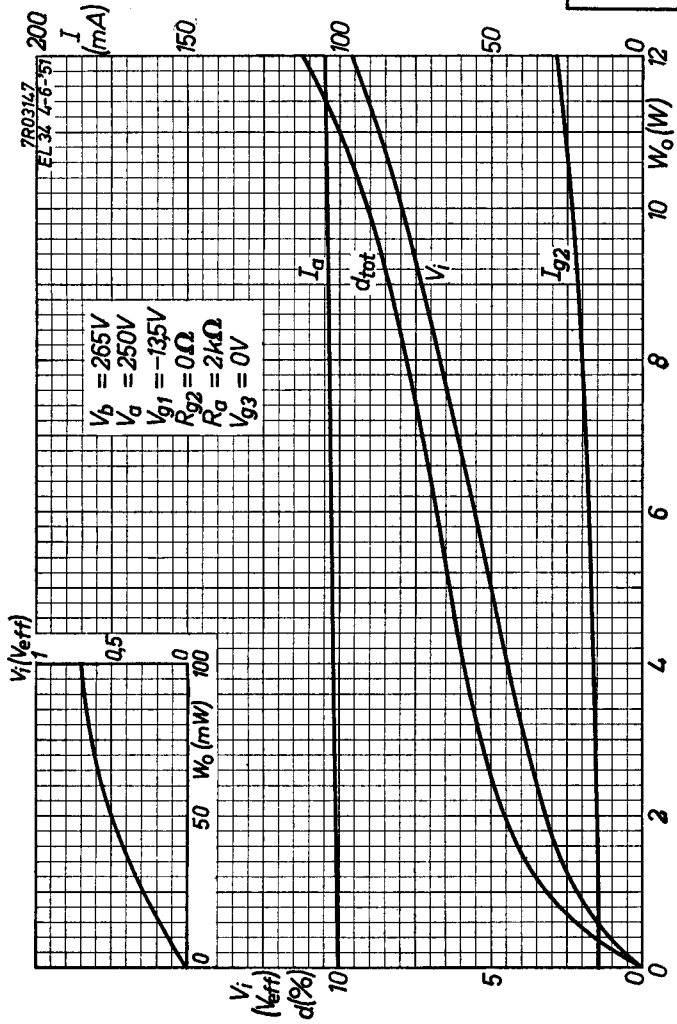


B



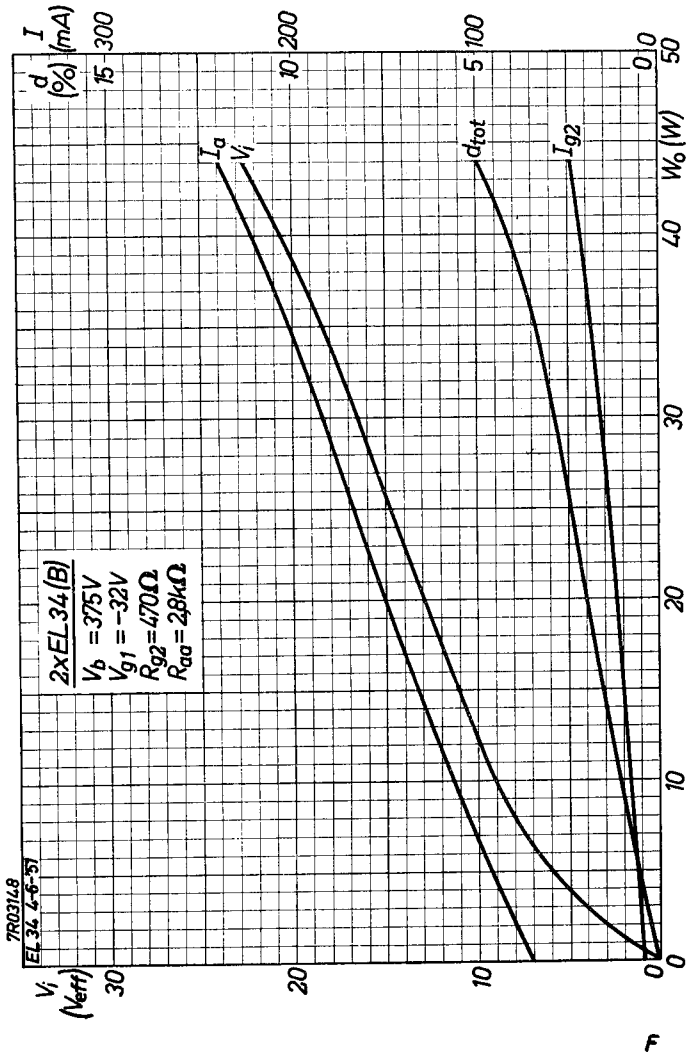
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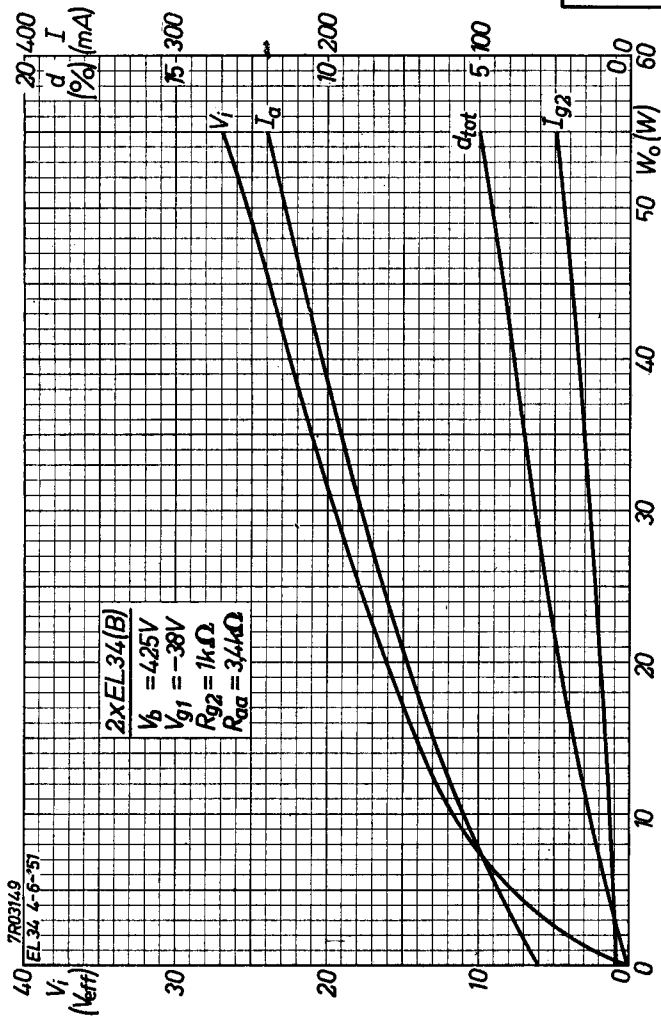


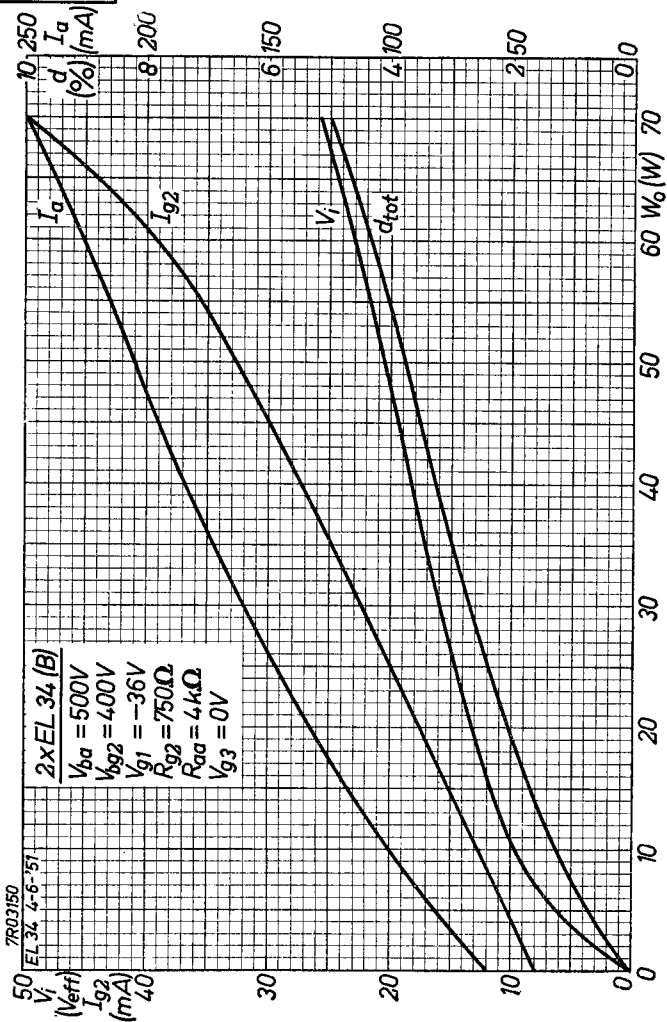


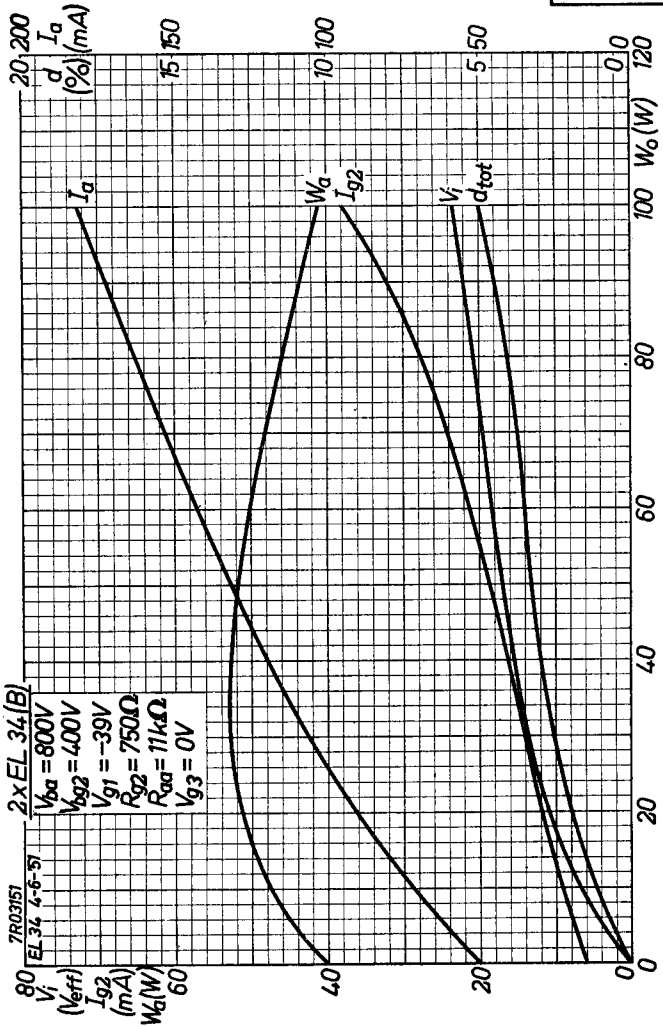
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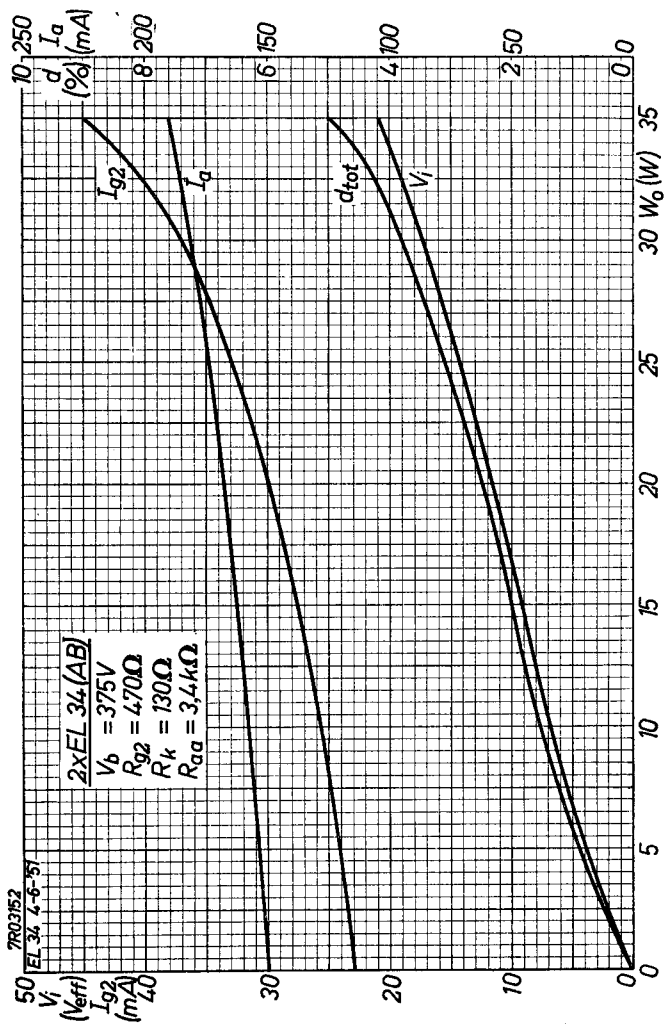
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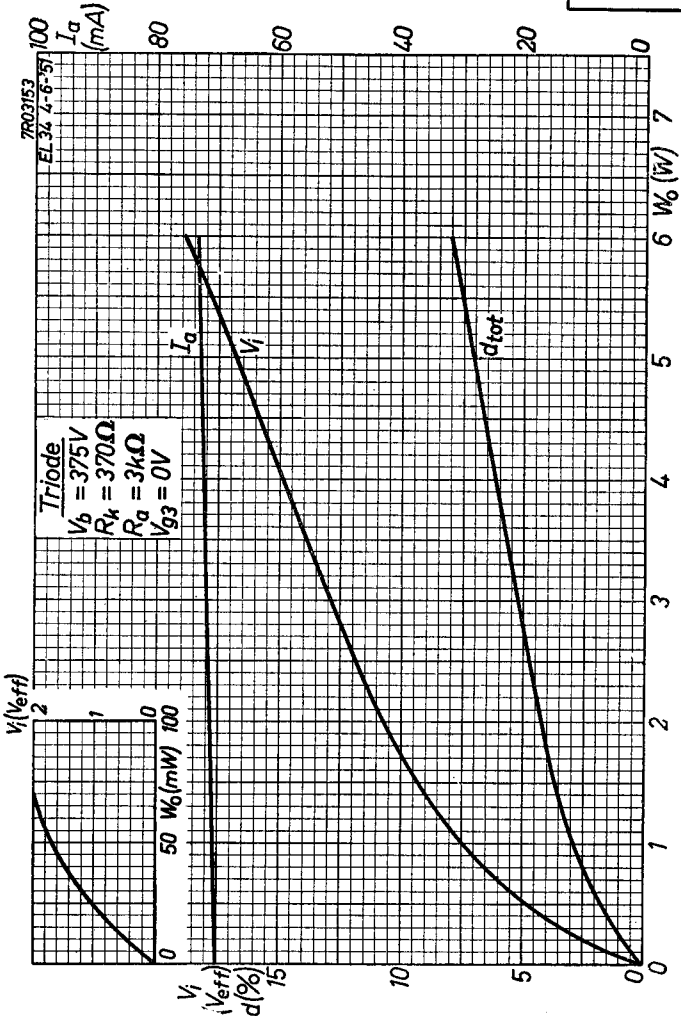




**EL 34****PHILIPS**



**EL 34****PHILIPS**



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**HANDBOOK**

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