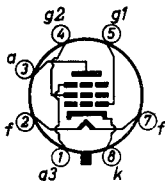


**OUTPUT PENTODE
PENTHODE DE SORTIE
ENDPENTODE**

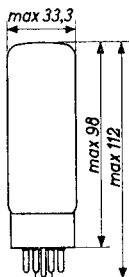
Heating: indirect by A.C. or D.C.;
parallel supply
Chauffage: indirect par C.A. ou C.C.;
alimentation en parallèle
Heizung: indirekt durch Wechsel-
oder Gleichstrom;
Parallelspeisung

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

Dimensions in mm
Dimensions en mm
Abmessungen in mm



Base
Culot OCTAL
Sockel



Socket
Support 5903/13
Fassung

Capacitances
Capacités
Kapazitäten

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

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_b	=	265	265	V
V_a	=	250	250	V
R_{g2}	=	2	0	k Ω
V_{g3}	=	0	0	V
V_{g1}	=	-14,5	-13,5	V
I_a	=	70	100	mA
I_{g2}	=	10	14,9	mA
S	=	9,0	11	mA/V
μ_{g2g1}	=	11	11	
R_i	=	18	15	k Ω
R_a	=	3,0	2,0	k Ω
V_i	=	9,3	8,7	V_{eff}
W_o	=	8	11	W
dt_{tot}	=	10	10	%
$V_i (W_o = 50 \text{ mW})$	=	0,65	0,5	V_{eff}

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

Rg2	=	1000			470			Ω ¹⁾
Vg1	=	-38			-32			V
Vg3	=	0			0			V
Vi	=	0	27	27	0	22,7	22,7	Veff
Raa	=	-	3,4	4,0	-	2,8	3,8	k Ω
Vb	=	425	425	400	375	375	350	V
Va	=	420	400	375	370	350	325	V
Ia	=	2x30	2x120	2x100	2x35	2x120	2x93	mA
Ig2	=	2x4,4	2x25	2x25	2x4,7	2x25	2x25	mA
Wo	=	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	Ω ¹⁾
V_{g1}	=	-36		-39	V
V_{g3}	=	0		0	V
V_i	=	0	25,8	25,8	V_{eff}
R_{aa}	=	-	4	5	11 k Ω
V_{ba}	=	500	500	475	750 V
V_a	=	495	475	450	725 V
V_{bg2}	=	400	400	375	375 V
I_a	=	2x30	2x125	2x102	2x84 mA
I_{g2}	=	2x4	2x25	2x25	2x19 mA
W_o	=	0	70	58	90 W
d_{tot}	=	-	5	6	5 %

Operating conditions class AB

Caractéristiques d'utilisation classe AB

Betriebsdaten Klasse AB

R_{aa}	=	3,4	k Ω
R_{g2}	=	470	Ω ¹⁾
R_k	=	130	Ω
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
d_{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	Class AB	
	Classe A	Classe AB	
	Klasse A	Klasse AB	
V_b	= 375	400	V
V_{g3}	= 0	0	V
R_k	= 370	220	Ω
R_a	= 3	-	k Ω
R_{aa}	= -	5	k Ω
V_1	= 18,9	0 22	V_{eff}
I_a	= 70	2x65 2x71	mA
W_0	= 6	0 16,5	W
d	= 8	- 3	%
$V_1(W_0=50mW)$	= 1,7		V_{eff}

Limiting values

Caractéristiques limites

Grenzdaten

V_{a0}	= max. 2000 V
V_a	= max. 800 V
$W_a (V_1 = 0)$	= max. 25 W
$W_a (V_1 > 0)$	= 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 Ω
$R_{g1} (B)$	= max. 0,5 M Ω
V_{fk}	= max. 100 V
R_{fk}	= max. 20 k Ω

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EL 60 2-2-49

250
 $I(mA)$

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}

200

150

100

50

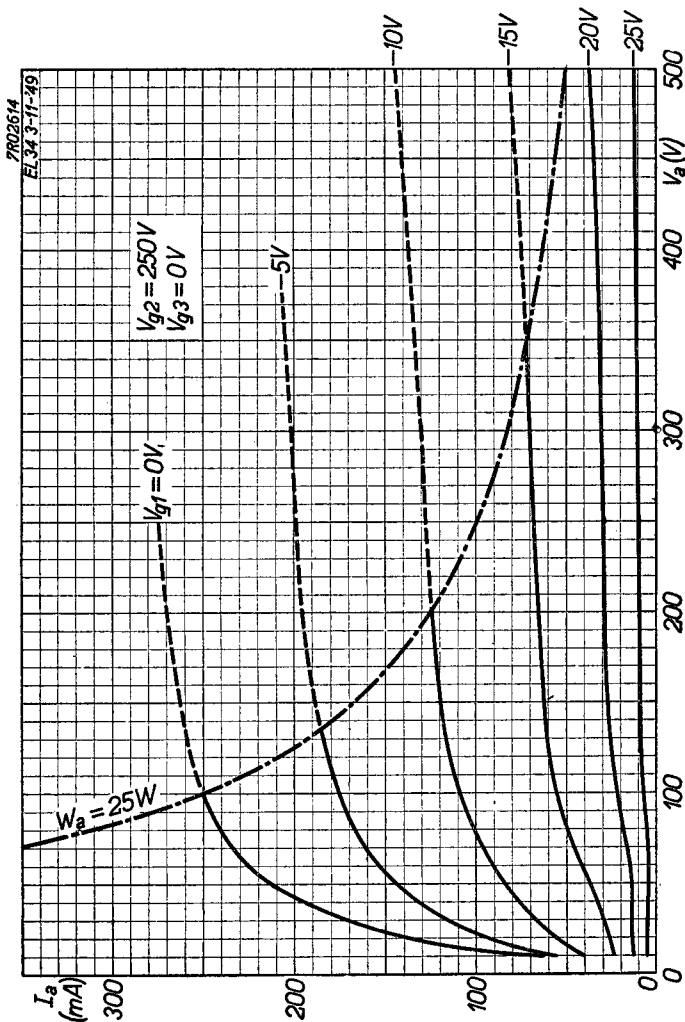
0

$V_{g1}(V) -60$

-40

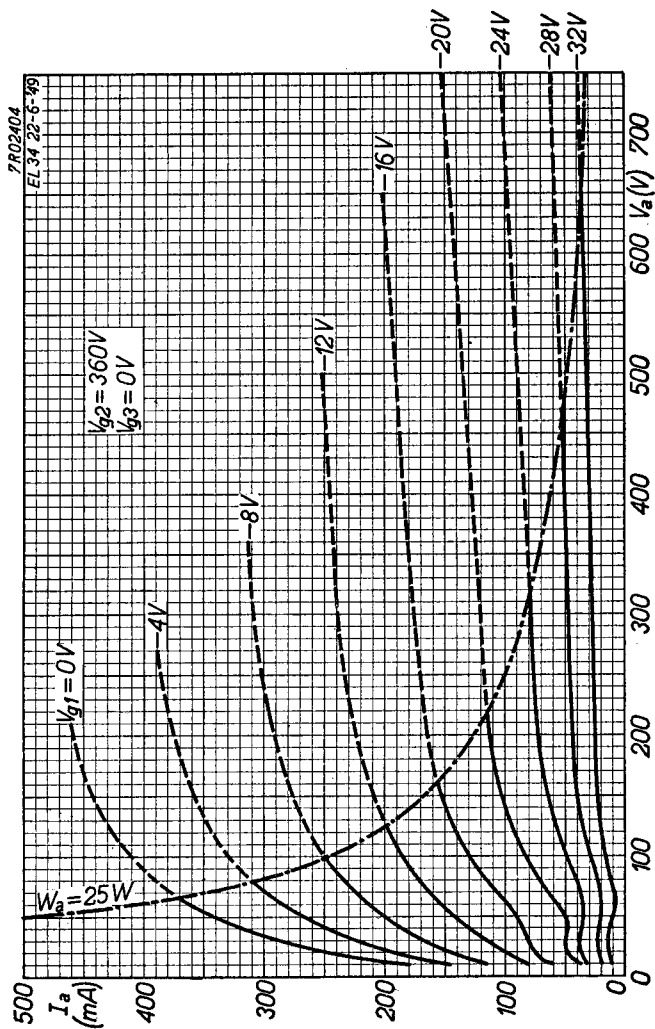
-20

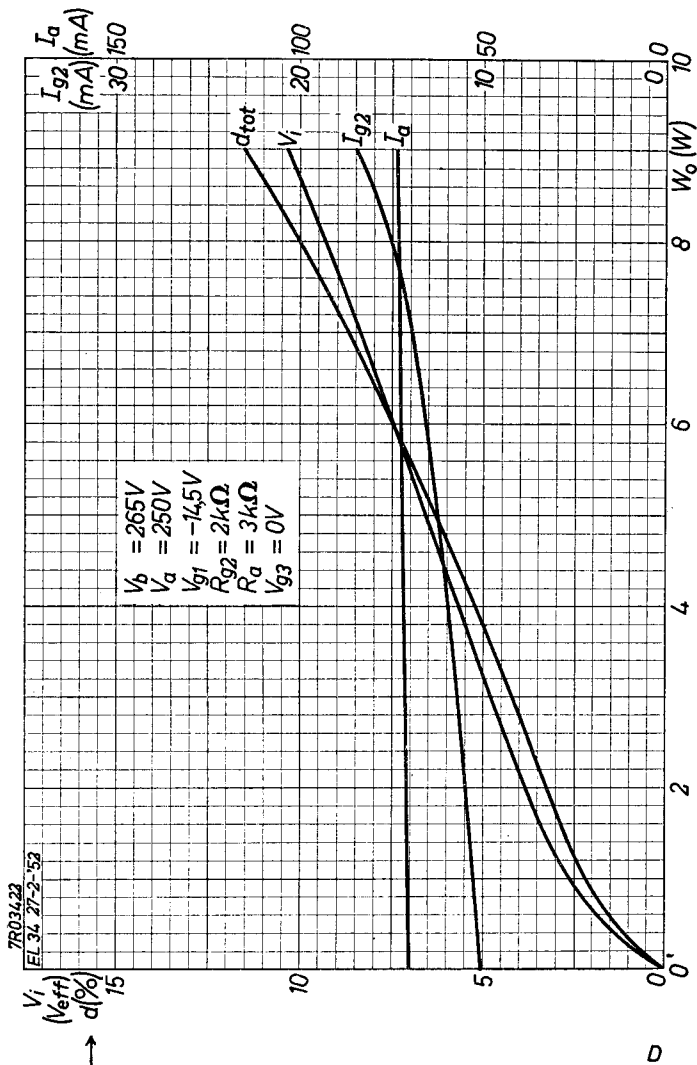
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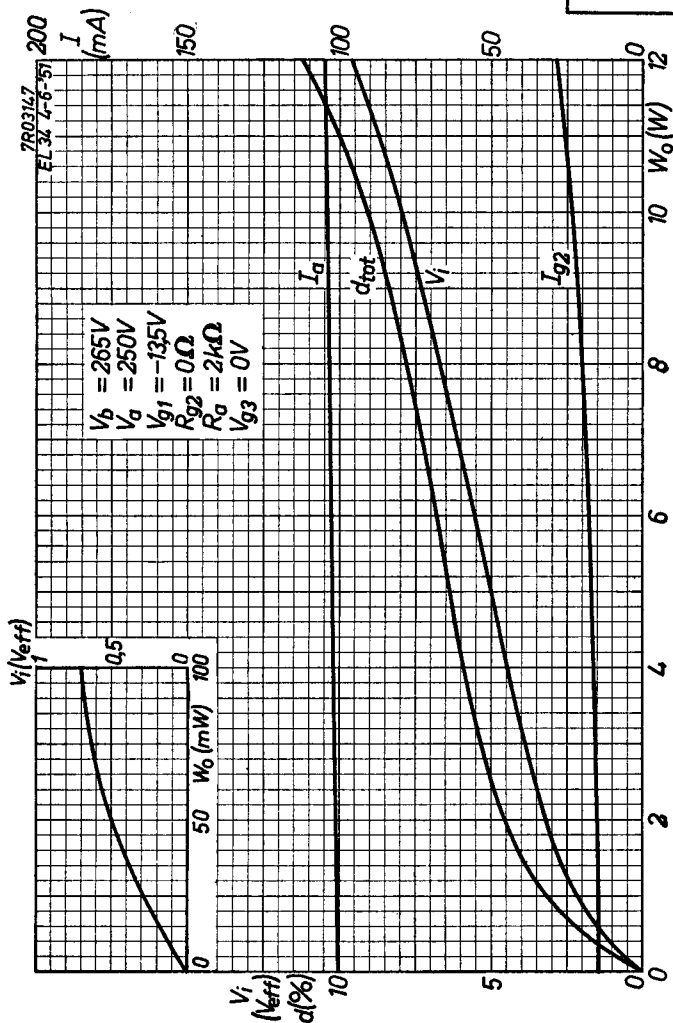
EL 34**PHILIPS****B**

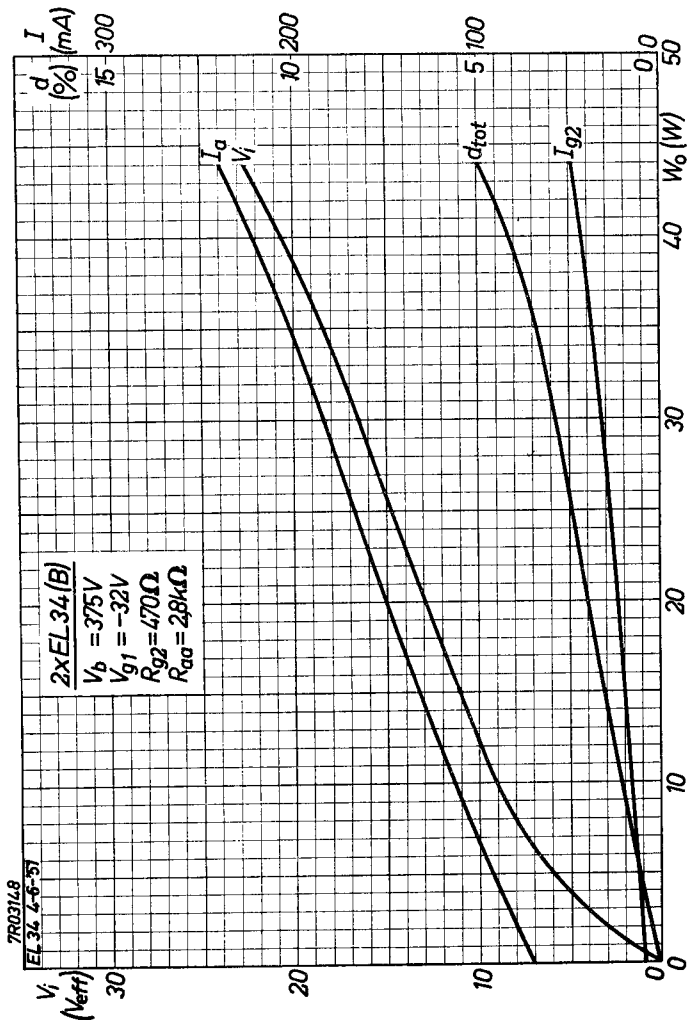
PHILIPS

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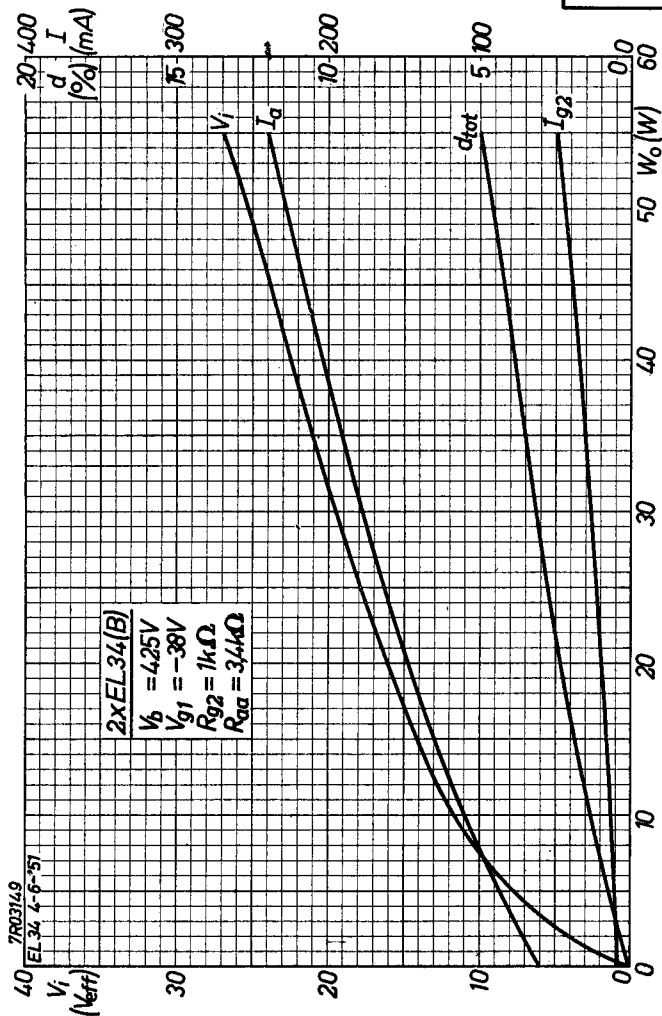
EL 34**PHILIPS**



EL 34**PHILIPS**

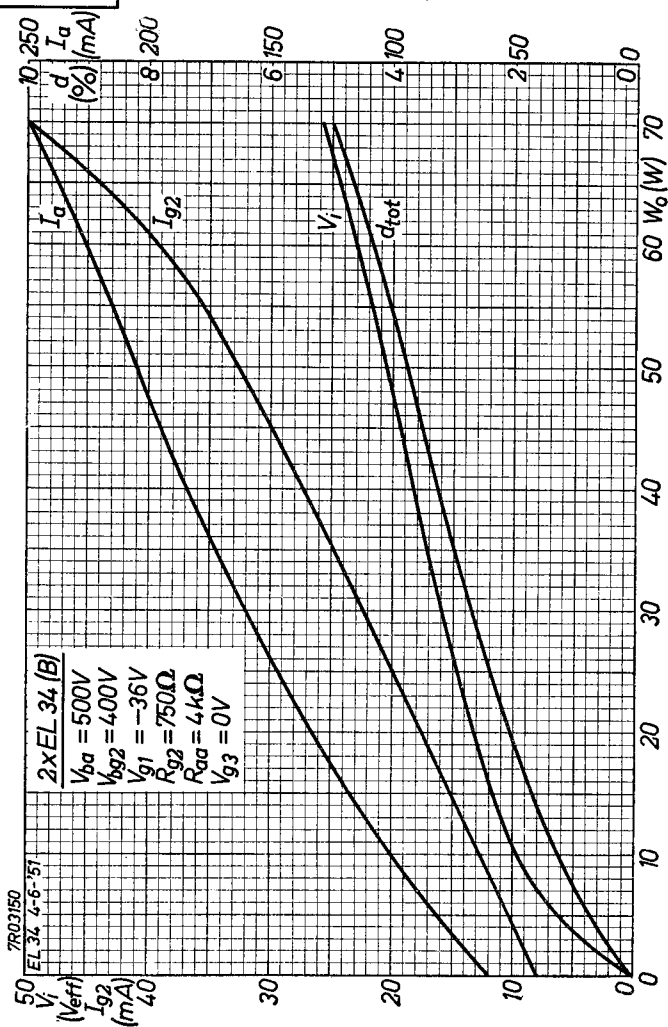
PHILIPS

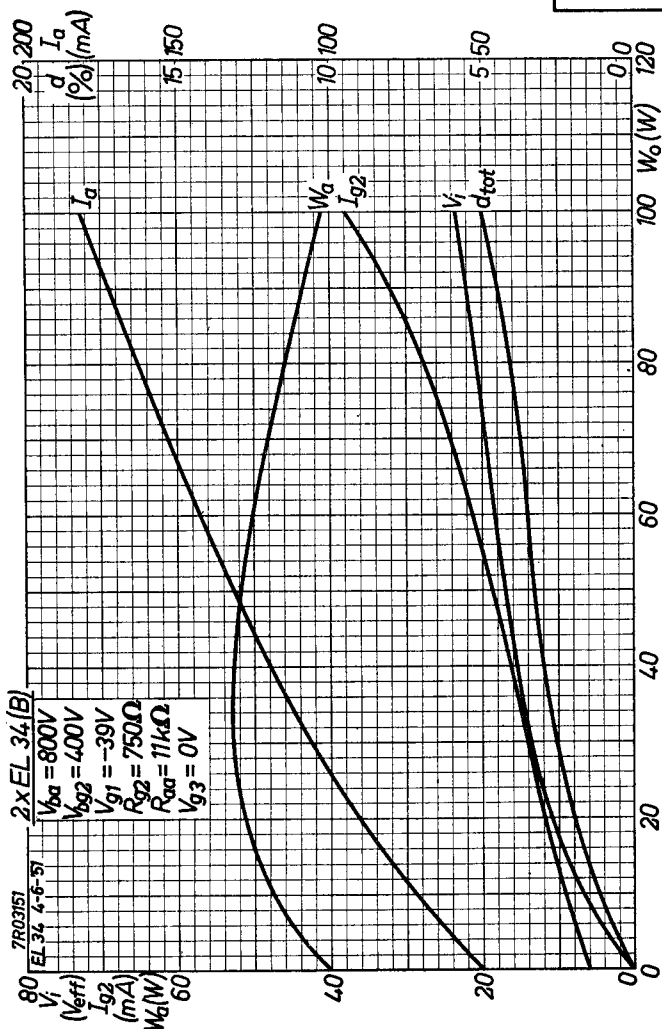
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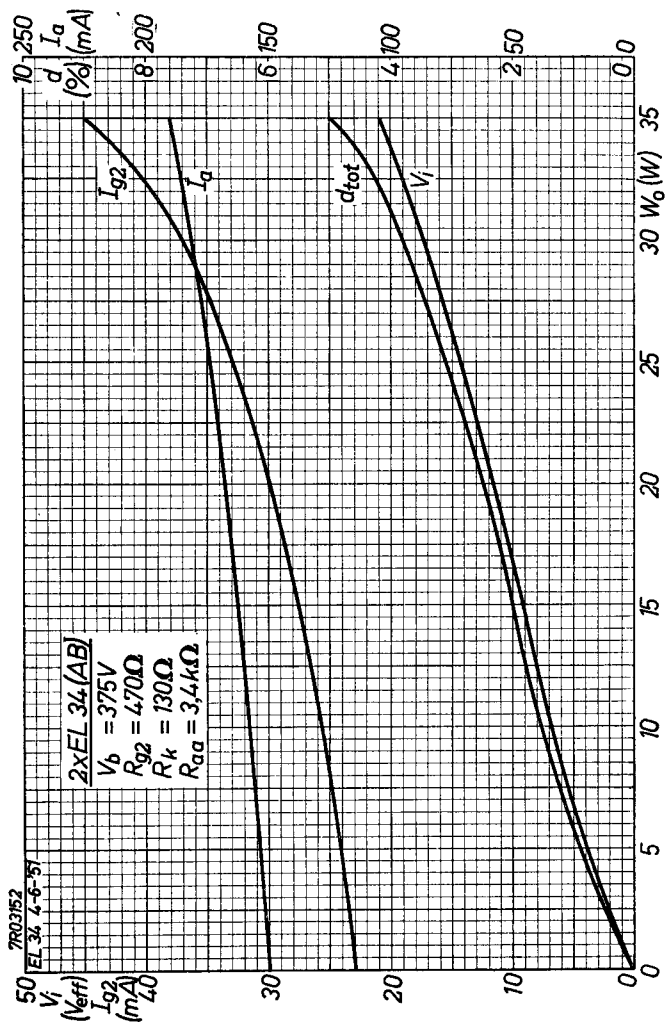
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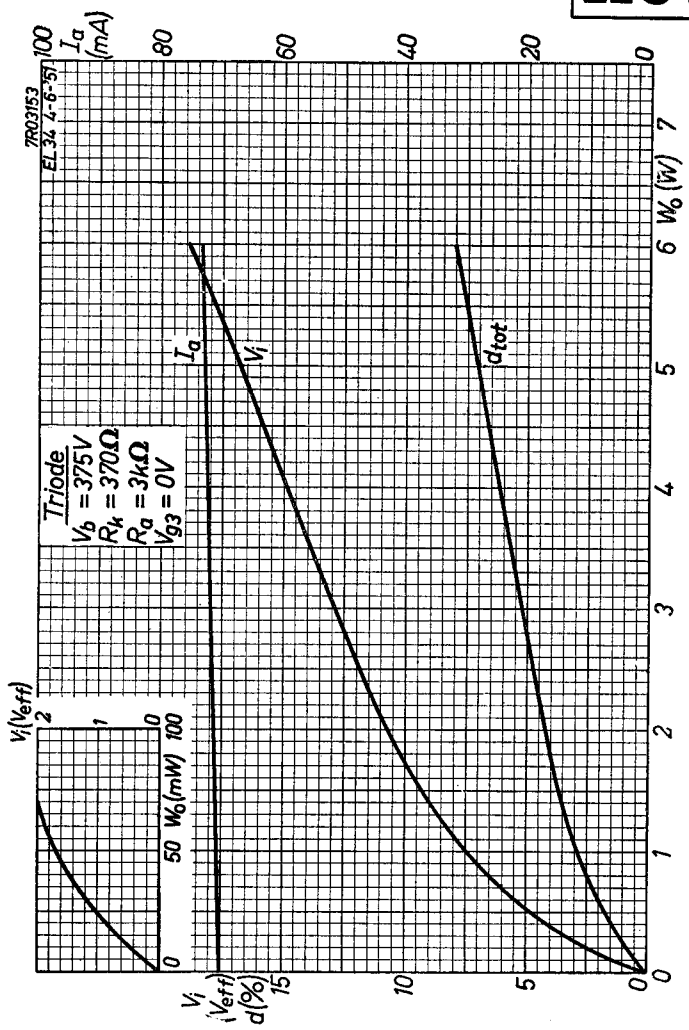
EL 34**PHILIPS**



EL 34

PHILIPS





PHILIPS

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Tube*

HANDBOOK

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5	A	1949.10.10
6	B	1949.10.10
7	C	1952.02.02
8	D	1952.02.02
9	E	1951.06.06
10	F	1951.06.06
11	G	1951.06.06
12	H	1951.06.06
13	I	1951.06.06
14	J	1951.06.06
15	K	1951.06.06
16	FP	1999.02.16