

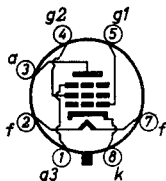
**OUTPUT PENTODE
PENTHODE DE SORTIE
ENDPENTODE**

Heating: indirect by A.C. or D.C.;
parallel supply

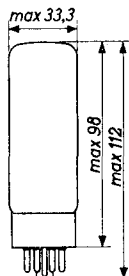
Chauffage: indirect par C.A. ou C.C.;
alimentation en parallèle $V_f = 6,3 \text{ V}$

Heizung: indirekt durch Wechsel-
oder Gleichstrom; $I_f = 1,5 \text{ A}$
Parallelspeisung

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.

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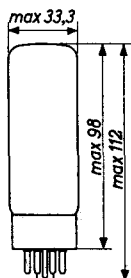
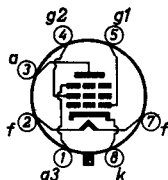
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Bemerkung Bei Verwendung eines sinusförmigen Eingangssignales muss darauf geachtet werden dass der maximal zulässige Wert von W_{g2} nicht überschritten wird.

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	kΩ
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	kΩ
R _a	=	3,0	2,0	kΩ
V _i	=	9,3	8,7	V _{eff}
W _o	=	8	11	W
dt _{tot}	=	10	10	%
V _i (W _o = 50 mW)	=	0,65	0,5	V _{eff}

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

R _{g2}	=	1000			470			Ω ¹⁾
V _{g1}	=	-38			-32			V
V _{g3}	=	0			0			V
V _i	=	0	27	27	0	22,7	22,7	V _{eff}
R _{aa}	=	-	3,4	4,0	-	2,8	3,8	kΩ
V _b	=	425	425	400	375	375	350	V
V _a	=	420	400	375	370	350	325	V
I _a	=	2x30	2x120	2x100	2x35	2x120	2x93	mA
I _{g2}	=	2x4,4	2x25	2x25	2x4,7	2x25	2x25	mA
W _o	=	0	55	45	0	44	36	W
dt _{tot}	=	-	5	6	-	5	6	%

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

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	=	11	12,5	mA/V
μ_{g2g1}	=	11	11	
R_i	=	20	17	k Ω
$R_{a\sim}$	=	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

R_{g2}	=	1000	470	Ω ¹⁾
V_{g1}	=	-38	-32	V
V_{g3}	=	0	0	V
V_i	=	0 27 27	0 22,7 22,7	V_{eff}
$R_{aa\sim}$	=	- 3,4 4,0	- 2,8 3,8	k Ω
V_b	=	425 425 400	375 375 350	V
V_a	=	420 400 375	370 350 325	V
I_a	=	2x30 2x120 2x100	2x35 2x120 2x93	mA
I_{g2}	=	2x4,4 2x25 2x25	2x4,7 2x25 2x25	mA
W_o	=	0 55 45	0 44 36	W
dt_{tot}	=	- 5 6	- 5 6	%

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 Résistance de grille-écran commune; ne pas découplée
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R_{g2}	=	750		750	Ω ¹⁾			
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 Ω
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
d_{tot}	=	-	5	6	-	5	6	%

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 %

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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	k Ω
V_{ba}	=	500	500	475	800
V_a	=	495	475	450	795
V_{bg2}	=	400	400	375	400
I_a	=	2x30	2x125	2x102	2x25
I_{g2}	=	2x4	2x25	2x25	2x3
W_o	=	0	70	58	0
$dtot$	=	-	5	6	-

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
$dtot$	=	-	5 %

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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_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 Ω
$R_{g1} (B)$	= max. 0,5 M Ω
V_{fk}	= max. 100 V
R_{fk}	= max. 20 k Ω

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)

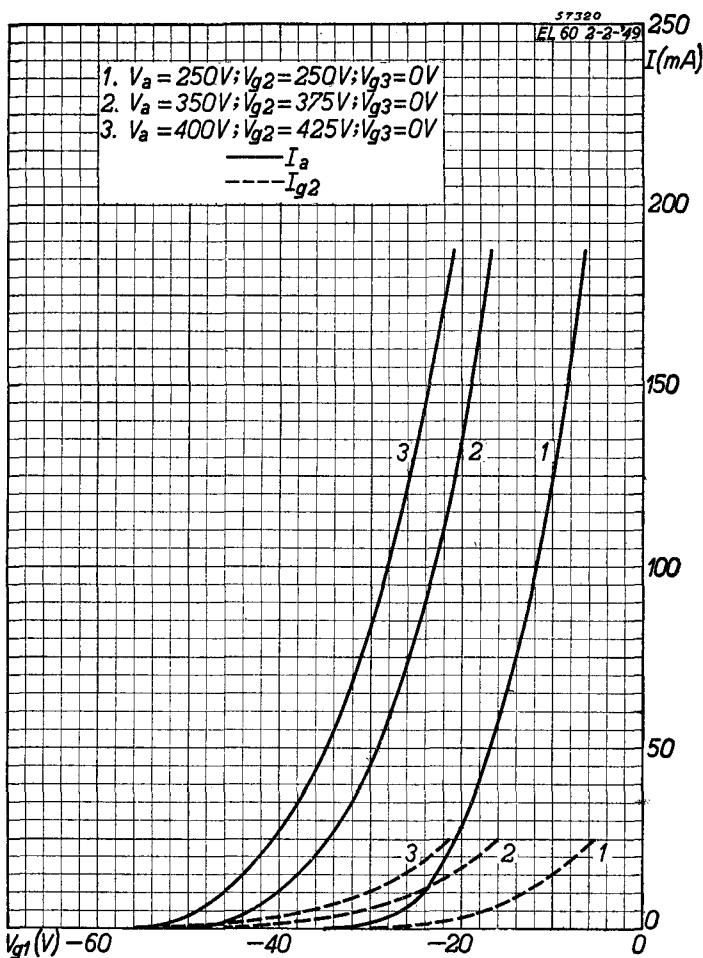
	Class A	Class AB	
	Classe A	Classe AB	
	Klasse A	Klasse AB	
V_b	= 375	400	V
V_{g3}	= 0	0	V
R_k	= 370	220	Ω
$R_a \sim$	= 3	-	k Ω
$R_{aa} \sim$	= -	5	k Ω
V_i	= 18,9	0 22	V_{eff}
I_a	= 70	2x65 2x71	mA
W_o	= 6	0 16,5	W
d	= 8	- 3	%
$V_i(W_o=50mW)$	= 1,7		V_{eff}

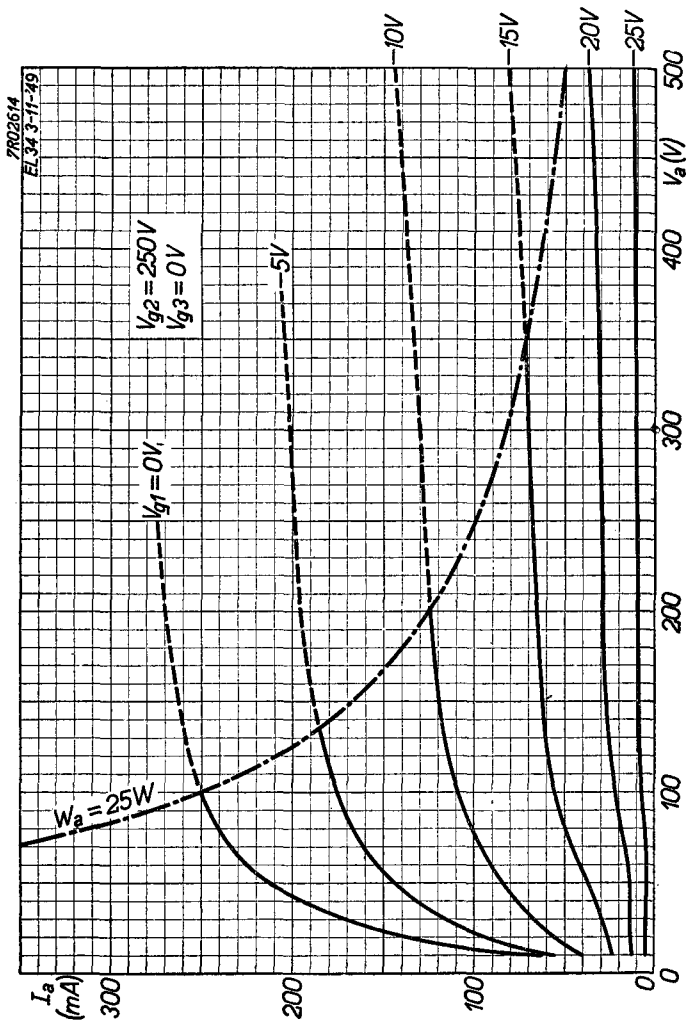
Limiting values

Caractéristiques limites

Grenzdaten

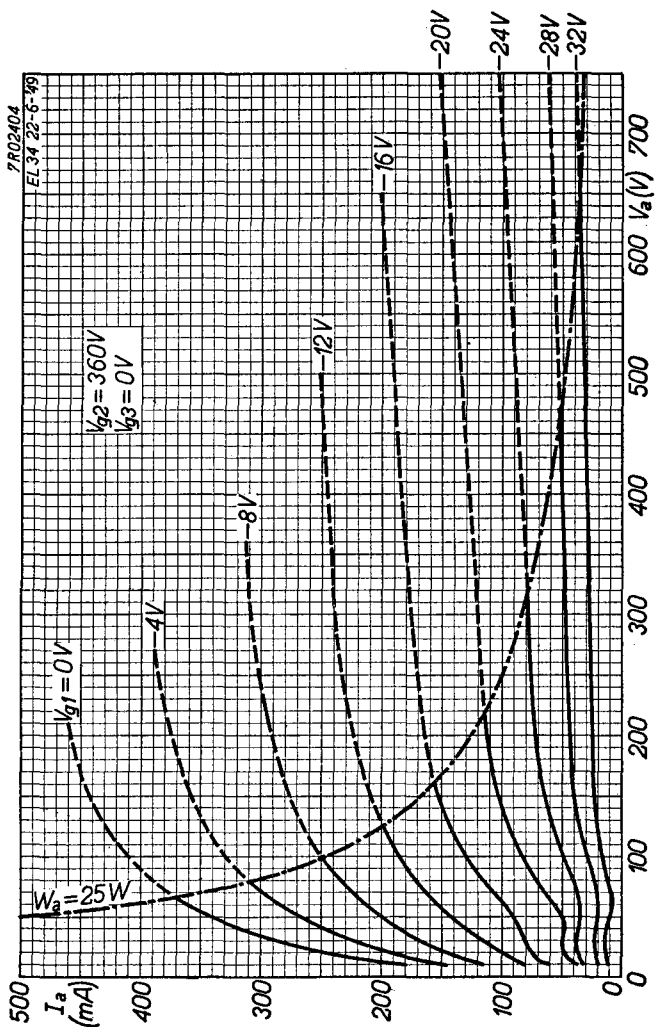
V_{a0}	= max. 2000 V
V_a	= max. 800 V
$W_a (V_i = 0)$	= max. 25 W
$W_a (V_i > 0)$	= max. 27,5 W
V_{g20}	= max. 800 V
V_{g2}	= max. 500 V
W_{g2}	= max. 8 W
I_k	= max. 150 mA
$V_{g1} (I_{g1} = +0,3 \mu A)$	= max. -1,3 V
$R_{g1} (A, AB)$	= max. 0,7 M Ω
$R_{g1} (B)$	= max. 0,5 M Ω
V_{fk}	= max. 100 V
R_{fk}	= max. 20 k Ω

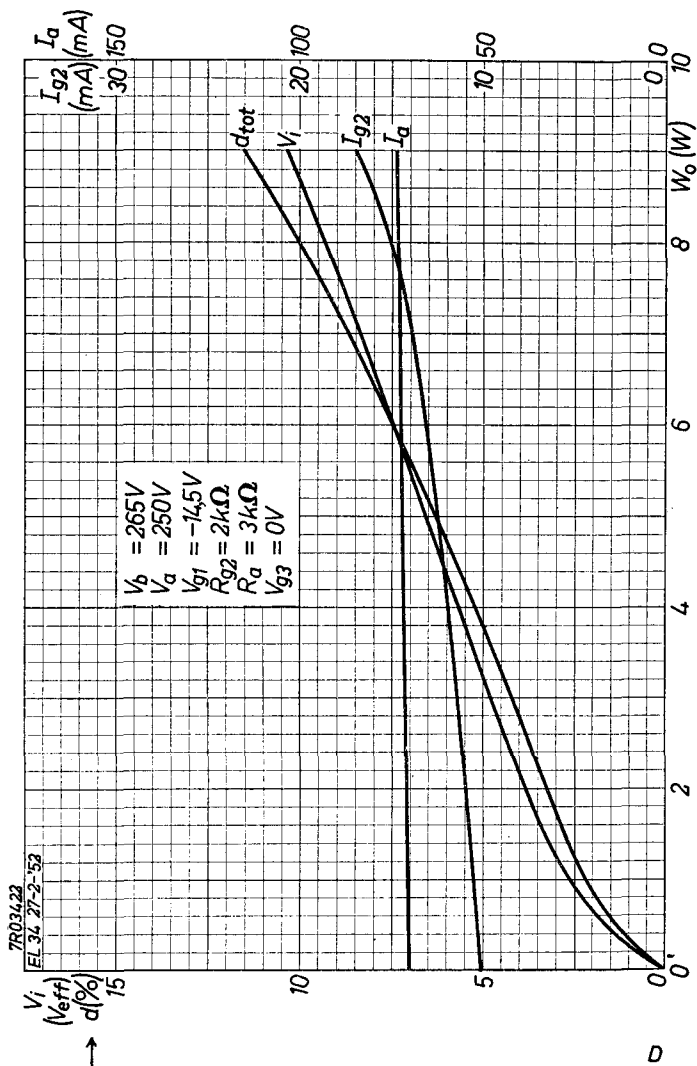


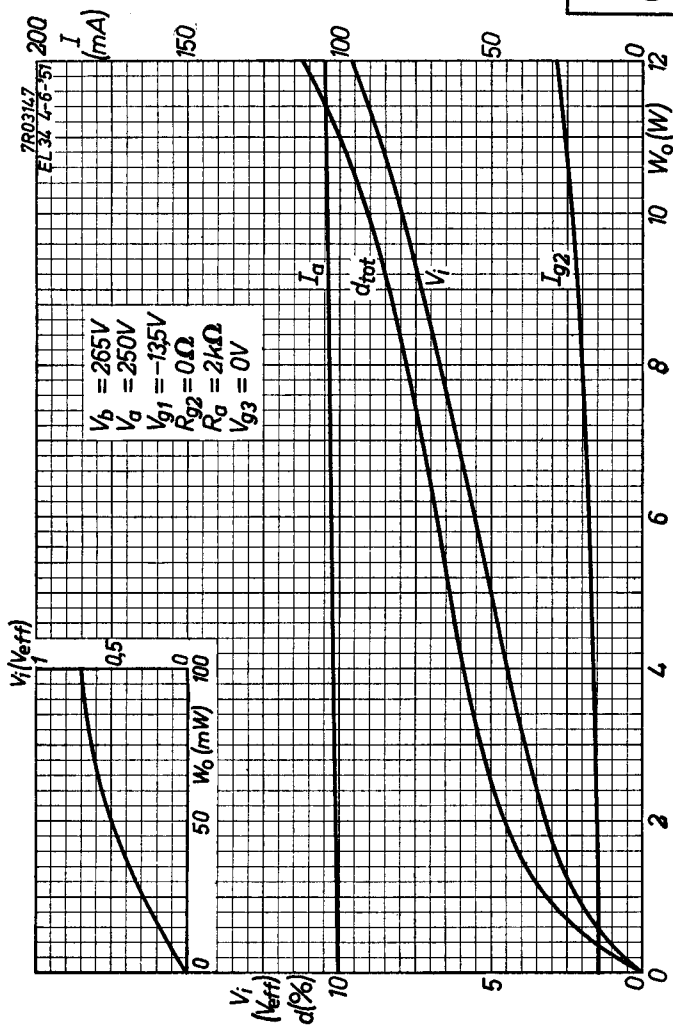
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EL 34

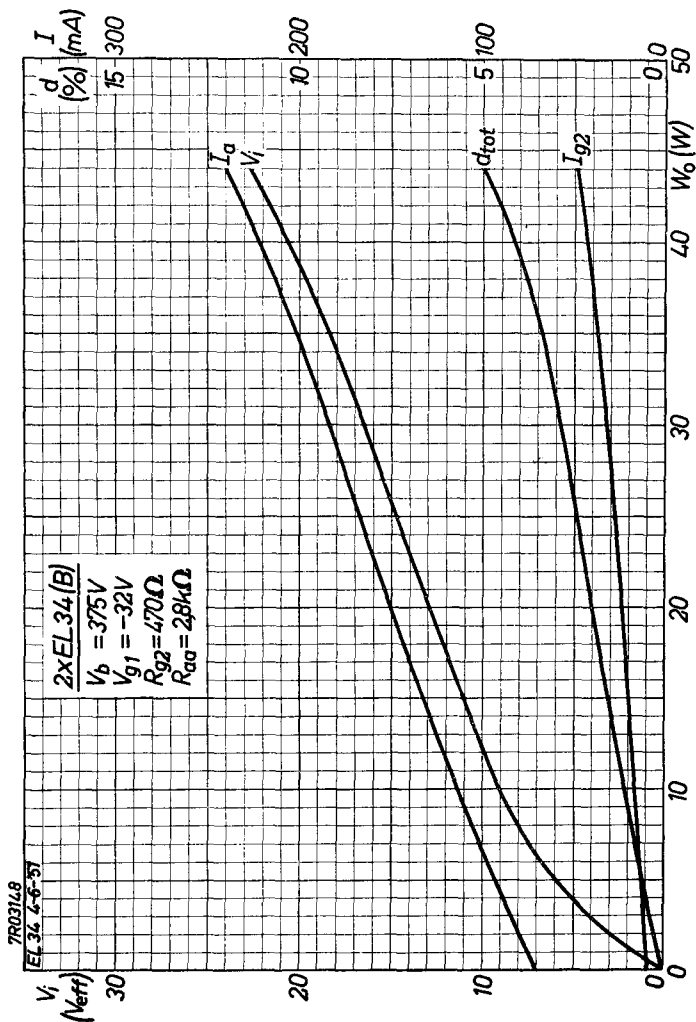


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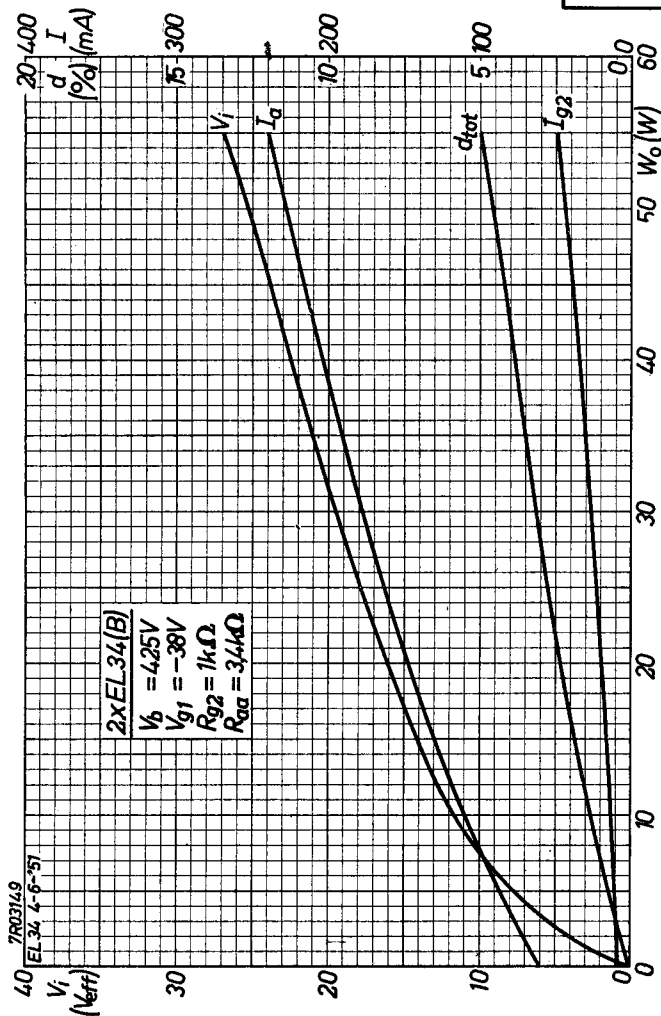
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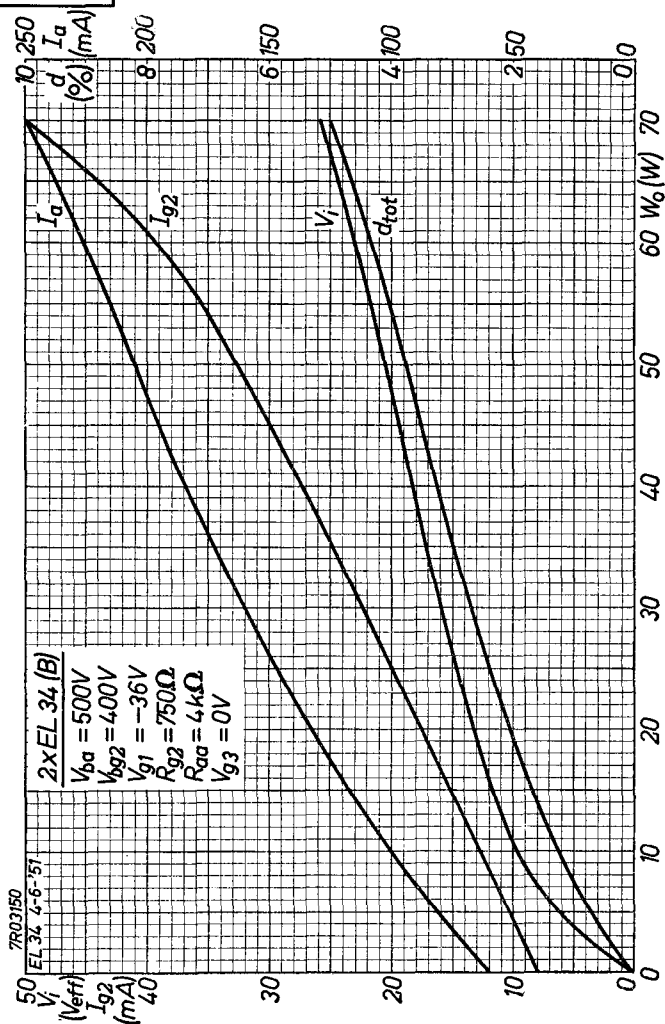
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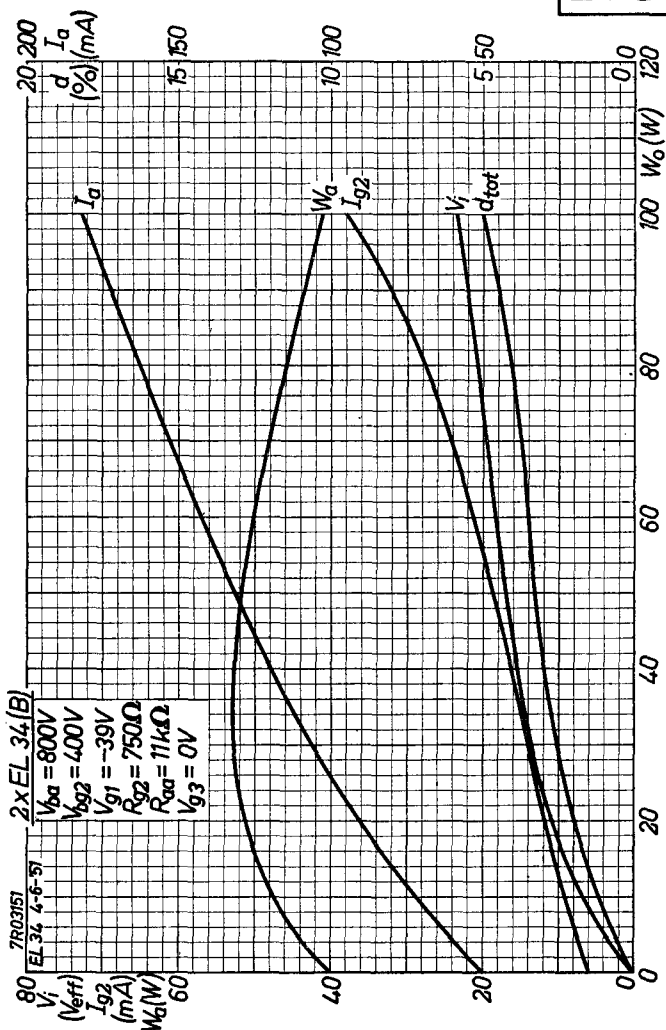
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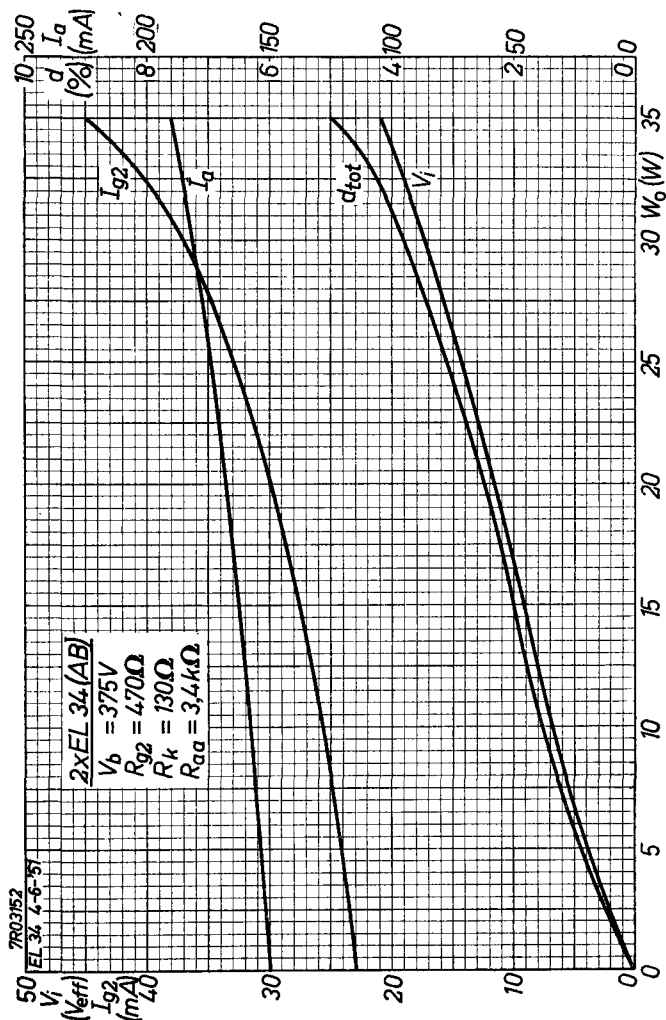


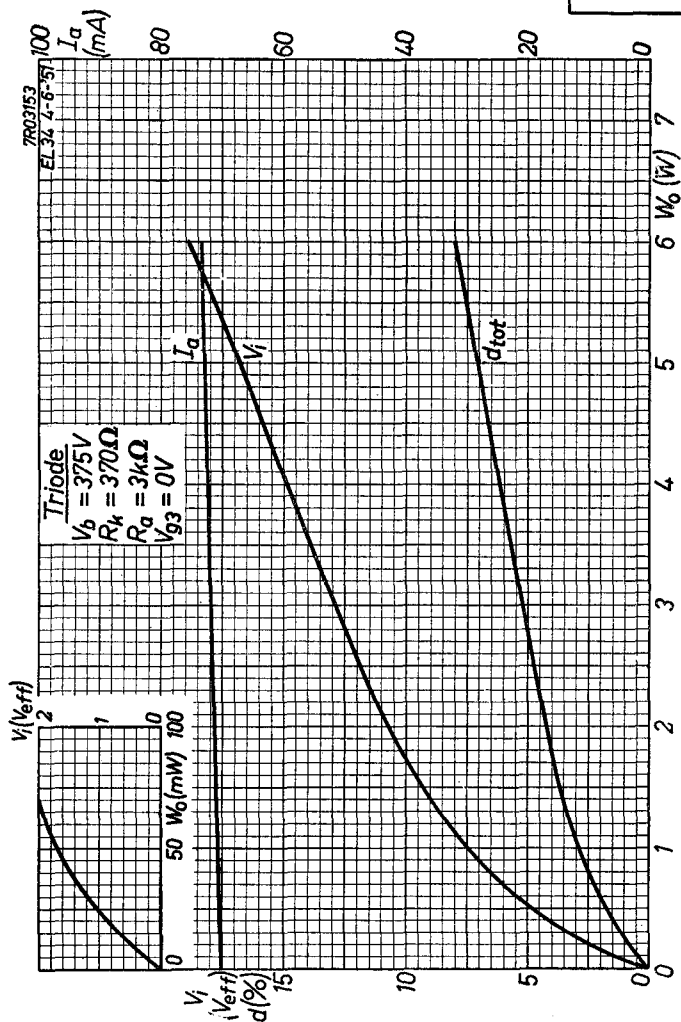
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2005.05.06