

TRIODE-HEPTODE

Triode-heptode intended for use as pulse separator, noise inverter and sync. amplifier.

QUICK REFERENCE DATA

Triode section

Anode voltage	V_a	50 V
Anode current	I_a	3 mA
Transconductance	S	3.7 mA/V
Amplification factor	μ	50 -

Heptode section

Anode voltage	V_a	135 V
Grids No.2 and 4 voltage	V_{g2+4}	14 V
Anode current	I_a	1.7 mA
Grids No.2 and 4 current	I_{g2+4}	0.9 mA
Transconductance	S	2.2 mA/V

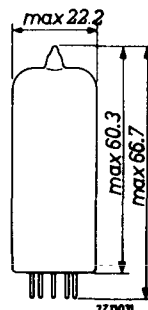
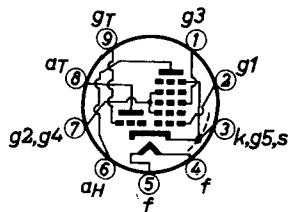
HEATING: Indirect by A.C. or D.C.; series or parallel supply

Heater voltage	V_f	6.3 V
Heater current	I_f	300 mA

DIMENSIONS AND CONNECTIONS

Dimensions in mm

Base: Noval



CAPACITANCES

Triode section

Grid to all except anode	$C_{g(a)}$	3.0 pF
Anode to grid	C_{ag}	1.1 pF

Heptode section

Anode to grid No. 1	C_{ag1}	max. 0.009 pF
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Between triode and heptode sections

Grid triode to grid No. 1 heptode	C_{gTg1H}	max. 0.10 pF
Anode triode to grid No. 1 heptode	C_{aTg1H}	max. 0.08 pF
Anode triode to grid No. 3 heptode	C_{aTg3H}	max. 0.13 pF
Grid triode to anode heptode	C_{gTaH}	max. 0.09 pF
Anode triode to anode heptode	C_{aTaH}	max. 0.25 pF

TYPICAL CHARACTERISTICS

Triode section

Anode voltage	V_a	50 V
Grid voltage	V_g	0 V
Anode current	I_a	3 mA
Transconductance	S	3.7 mA/V
Amplification factor	μ	50 -
Anode voltage	V_a	200 V
Grid voltage	V_g	-11 V
Anode current	I_a	max. 0.1 mA

TYPICAL CHARACTERISTICS (continued)Heptode section

Anode voltage	V_a	135 V
Grid No.3 voltage	V_{g3}	0 V
Grids No.2 and 4 voltage	V_{g2+4}	14 V
Grid No.1 voltage	V_{g1}	0 V
Anode current	I_a	1.7 mA
Grids No.2 and 4 current	I_{g2+4}	0.9 mA
Transconductance	S	2.2 mA/V
Grid No.3 voltage	V_{g3}	-2 V
Grid No.1 voltage	V_{g1}	0 V
Anode current	I_a	20 μ A
Grid No.1 voltage	V_{g1}	-1.9 V
Grid No.3 voltage	V_{g3}	0 V
Anode current	I_a	20 μ A

LIMITING VALUES (Design centre rating system)Heptode section

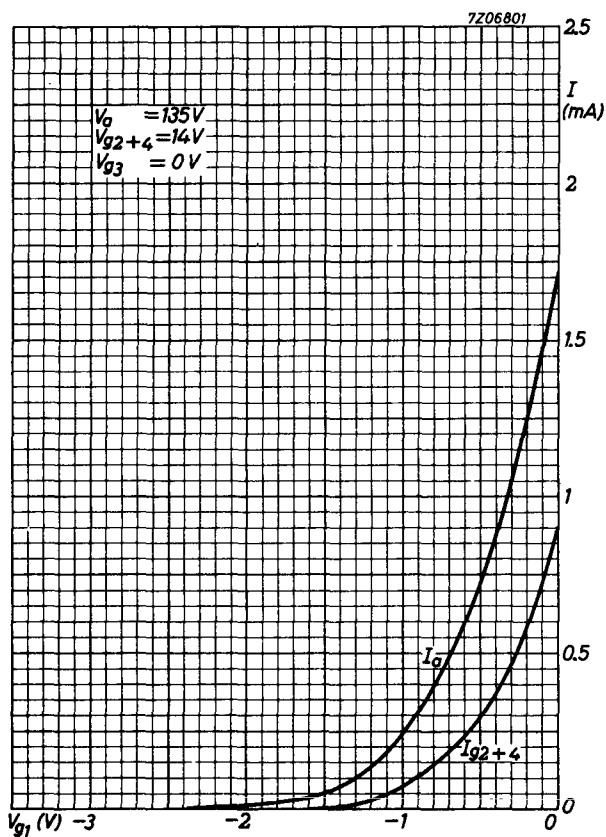
Anode voltage	V_{a0}	max. 550 V
	V_a	max. 250 V
Anode dissipation	W_a	max. 1.7 W
Grids No.2 + 4 voltage	V_{g2+40}	max. 550 V
	V_{g2+4}	max. 250 V
		min. 10 V ¹⁾
Grids No.2 + 4 dissipation	W_{g2+4}	max. 0.8 W
Grid No.3 voltage, negative peak	$-V_{g3p}$	max. 150 V
Grid No.3 resistor	R_{g3}	max. 3 M Ω
Grid No.1 voltage, negative peak	$-V_{g1p}$	max. 150 V
Grid No.1 resistor	R_{g1}	max. 3 M Ω
Cathode current	I_k	max. 12.5 mA
Cathode to heater voltage	V_{kf}	max. 100 V

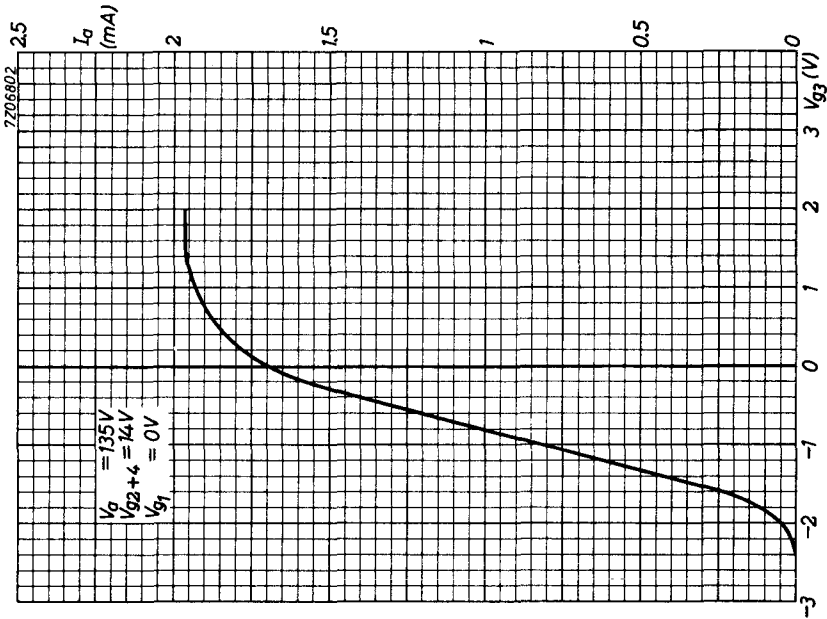
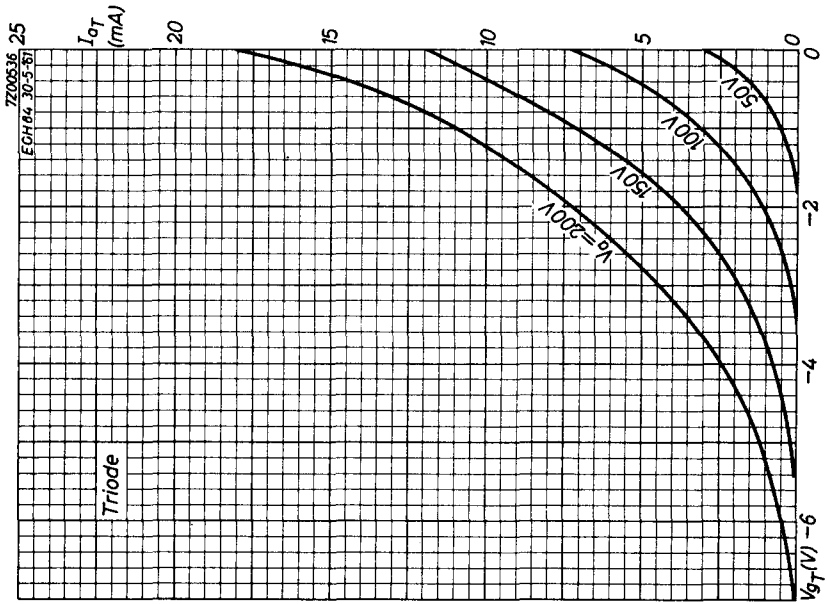
¹⁾ This value applies to an average tube operated under the worst probable conditions.

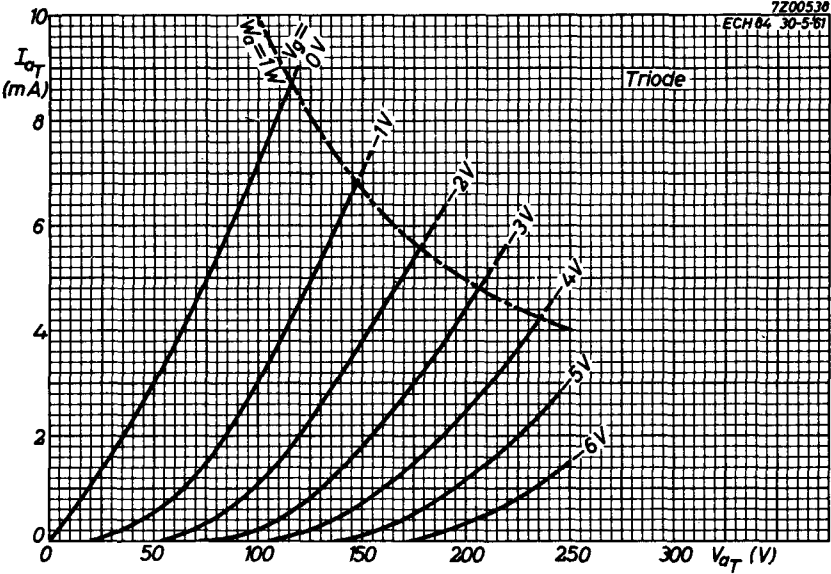
LIMITING VALUES (continued)

Triode section

Anode voltage	V_{a0}	max.	550	V
	V_a	max.	250	V
Anode dissipation	W_a	max.	1.3	W
Grid voltage, negative peak	$-V_{gp}$	max.	200	V
Grid resistor	R_g	max.	3	$M\Omega$
Cathode current	I_k	max.	10	mA
Cathode to heater voltage	V_{kf}	max.	100	V







PHILIPS

Data handbook



**Electronic
components
and materials**

ECH84

page	sheet	date
1	1	1970.01
2	2	1970.01
3	3	1970.01
4	4	1970.01
5	5	1970.01
6	6	1970.01
7	FP	1999.08.10