

Internally neutralized double tetrode designed for RF amplification, oscillation, and frequency multiplication.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	9
NOMINAL HEATER	6.3 V / 600 mA	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION1 Tetrode	
TRANSCONDUCTANCE	0.0105 S
AMPLIFICATION FACTOR	31
MAXIMUM PLATE VOLTAGE	250 V
MAXIMUM SCREEN VOLTAGE	200 V
Identical repeated sections compressed to one row. Internally neutralized double tetrode for RF amplifier, oscillator and frequency-multiplier service.	

SECTION2 Tetrode	
TRANSCONDUCTANCE	0.0105 S
AMPLIFICATION FACTOR	31
MAXIMUM PLATE VOLTAGE	250 V
MAXIMUM SCREEN VOLTAGE	200 V
Second physical RF tetrode section; added to align rows with SectionCount.	

Internally neutralized double tetrode for RF amplifier, oscillator and frequency-multiplier service.

SOURCE OPERATING CONDITIONS

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1963 Philips Electron Tubes Handbook V4

Published test conditions and operating points. Values on this page are preserved as reported by this source.

1963 PHILIPS ELECTRON TUBES HANDBOOK V4

Section 1 · Tetrode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Cathode: oxyde Vf	12.6 V	Cathode: oxyde Vf = 6.3 12.6 V 1)
Katode : Oxyd	300 mA	Katode : Oxyd 0.6 0.3 A
should not exceed	7 V	Cooling should not exceed 7 V or 14 V and the accumulator may be
should not exceed	14 V	Cooling should not exceed 7 V or 14 V and the accumulator may be
actuel ne surpassera pas	7 V	Cooling actuel ne surpassera pas 7 V ou 14 V et l'accumulateur
actuel ne surpassera pas	14 V	Cooling actuel ne surpassera pas 7 V ou 14 V et l'accumulateur
maniere que Vf	5.7 V	Cooling maniere que Vf = 5.7 V ou 11.4 V
maniere que Vf	11.4 V	Cooling maniere que Vf = 5.7 V ou 11.4 V
Eine voribergehende Abweichung von Vf von	1 s	Cooling Eine voribergehende Abweichung von Vf von 10 % 1st zu-

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate capacitance	1.6 pF	Capacitances Ca = 1.6 pF Co = 0.95 pF
Plate capacitance	0.95 pF	Capacitances Ca = 1.6 pF Co = 0.95 pF
Control-grid capacitance	6.4 pF	Capacitances Cg1 = 6.4 pF C1 = 3.8 pF
Control-grid capacitance	3.8 pF	Capacitances Cg1 = 6.4 pF C1 = 3.8 pF
Grid-to-plate capacitance	0.16 pF	Capacitances Cag1 = 0.16 pF

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Typical characteristics per system Va	150 V	Typical characteristics Typical characteristics per system Va = 150 V
Kenndaten pro System Vg	150 V	Typical characteristics Kenndaten pro System Vg2 = 150 V
Plate current	25 mA	Typical characteristics Ia = 25 mA
Transconductance	10.5 mA/V	Typical characteristics S = 10.5 mA/V
f = max	500 ma	Maximum ratings f = max. 500 max. 500 Mc/s
f = max	500 MHz	Maximum ratings f = max. 500 max. 500 Mc/s
Plate voltage	250 ma	Maximum ratings Va = max. 250 max. 250 V
Plate voltage	250 V	Maximum ratings Va = max. 250 max. 250 V
Wia = max	6 ma	Maximum ratings Wia = max. 2x6 max. 2x7 W
Wia = max	7 W	Maximum ratings Wia = max. 2x6 max. 2x7 W
Wa = max	3 ma	Maximum ratings Wa = max. 2x3 max. 2x3.75 W
Wa = max	3.75 W	Maximum ratings Wa = max. 2x3 max. 2x3.75 W
Plate current	45 ma	Maximum ratings Ia = max. 2x45 max. 2x50 mA
Plate current	50 mA	Maximum ratings Ia = max. 2x45 max. 2x50 mA
Screen-grid voltage	200 ma	Maximum ratings Vg2 = max. 200 max. 200 V
Screen-grid voltage	200 V	Maximum ratings Vg2 = max. 200 max. 200 V
Wg	1.5 ma	Maximum ratings Wg2 = max. 2x1.5 max. 2x1.75 w
Wg	1.75 w	Maximum ratings Wg2 = max. 2x1.5 max. 2x1.75 w
Vg t = max	100 ma	Maximum ratings -Vg t = max. 100 max. 100 V
Vg t = max	100 V	Maximum ratings -Vg t = max. 100 max. 100 V
Igi = max	3 ma	Maximum ratings Igi = max. 2x3 max. 2x4 mA
Igi = max	4 mA	Maximum ratings Igi = max. 2x3 max. 2x4 mA
Vkf = max	100 ma	Maximum ratings Vkf = max. 100 max. 100 V
Vkf = max	100 V	Maximum ratings Vkf = max. 100 max. 100 V
f	500 MHz	Maximum ratings f = 500 500 Mc/s
Plate voltage	200 V	Maximum ratings Va = 180 200V

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Screen-grid voltage	200 V	Maximum ratings Vg2 = 180 200 V
Control-grid voltage	20 V	Maximum ratings Vg1 = -20 20V
Vg	50 V	Maximum ratings Vg1g1'p = 50 50 V
Plate current	31 mA	Maximum ratings Ia = 2x27.5 2x31 mA
Screen-grid current	14 mA	Maximum ratings Ig2 = 12.5 14 mA
Igi	0.75 mA	Maximum ratings Igi = 2x0.75 2x0.75 mA
Wia	6.2 W	Maximum ratings Wia = 2x5 2x6.2 W
Wa	2.6 W	Maximum ratings Wa = 2x2.1 2x2.6 W
Wg	2.8 W	Maximum ratings Wg2 = 2.25 2.8 W
Wig	1.2 W	Maximum ratings Wig1 2) = 1.2 1.2W



SOURCE OPERATING CONDITIONS

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1999 Philips E-Z

Published test conditions and operating points. Values on this page are preserved as reported by this source.

1999 PHILIPS E-Z

Section 1 · Tetrode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Cathode: oxyde V _q = 6,3	12.6 V	—
Katode : Oxyd Ir = 0,6	300 mA	—
Vy, = max. 250 max	250 V	PushPull;Telegraphy
Wg = maxXx., 2X3 max. 2x3,	75 W	—
Ig = max. 2x45 max. 2x5	0 ma	—
Vg2 = max., 200 max	200 V	—
Wgo = max. 2x1,5 max. 2x1,	75 W	—
Vg1 = max. 50 max	50 V	—
Vi = max, 100 max	100 V	—
by = 500	500 Mc/s	—
Va = 180	200 V	—

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Vg2 = 180	200 V	—
Ia = 2x27,5 2x3	1 mA	—
Ig2 = 12,5	14 ma	—
Wig = 2x5 2x6,	2 W	—
Wa = 2x2,1 2x2,	6 W	—
Wigl 2) = 1,2	1.2 W	—
Wo = 5,8	7.2 W	—
Wy 3) = 5	6 w	—
f = max. 00 max	0 Mc/s	PushPull;Telegraphy
f = 500	500 Mc/s	—
Vg1 = =20	-20 V	—
Vgigi'p = 50	50 V	—
Ig2 = 12,5	14 mA	—
Iz = 2x0,75 2x0,	75 mA	—
Wia = 2x5 2x6,	2 W	—
Wg2 = 2,25	2.8 W	—
Wo = 5,8	7.2 w	—
w3 = 5	6 W	—
z max. 500 max	500 Mc/s	PushPull
Wa = max. 2x2 max, 2x2,	5 W	—
Ig = max. 2x32 max. 2x4	0 mA	—
Vg2 = max. 200 max	200 V	—

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Ca	1.6 pF	PushPull
Cg1	6.4 PF	PushPull
Cagt = 0,	16 pF	PushPull

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Caractéristiques types par système a	150 v	—
Kenndaten pro System Vg2	150 V	—

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
vgagl = 31	10.5 mA	—
Cooling: Radlation and convection. The use of a closed can	1 s	—
Température de l'ampoule (au point le plus chaud) max	225 °C	—
should not exceed [1]	7 V	—
should not exceed [2]	14 V	—
that V _ç is 5.7 Vor	11.4 V	—
actuel ne surpassera pas 7 Vou	14 V	—
maniere que V _ç	5.7 V	—
wird, so soll die an der Rohre gemessene Heizspannung	7 V	—
oder	14 V	—
dass Vf [1]	5.7 V	—
dass Vf [2]	11.4 V	—