



ELECTRONIC TUBE REFERENCE

QQE0320

Power - Tetrode (NOT beam) electronic tube

CONSOLIDATED TECHNICAL DATA

2 SECTIONS

CONSTRUCTION

TETRODE-TETRODE

Double tetrode designed for RF Class-C and audio-frequency amplifier service. Two power sections share one envelope for paired or push-pull output operation.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	7
NOMINAL HEATER	6.3 V / 1.3 A	PARALLEL HEATER	6.3 V / 1.3 A
HEATING	Indirect	SERIES OPERATION	Capable
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION1 Tetrode	
TRANSCONDUCTANCE	0.0025 S
AMPLIFICATION FACTOR	8
MAXIMUM PLATE VOLTAGE	250 V
MAXIMUM SCREEN VOLTAGE	250 V
<i>Published values promoted where clearly readable; identical repeated sections compressed when applicable.</i>	

SECTION2 Tetrode	
<i>No fixed ratings recorded.</i>	

Double tetrode for RF Class-C and AF amplifier service.



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

195X Tesla

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

195X TESLA

Section 1 · Tetrode

CHARACTERISTICS

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	6.3 V	Published nominal value or midpoint of published range
Heater current	1.3 A	Published nominal value or midpoint of published range

CAPACITANCE

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Input capacitance	7 pF	Published first-page value
Output capacitance	2.6 pF	Published first-page value



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

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
quencies up to	0 MHz	quencies up to 0'00 Mc/s or as L.F. amplifier
bei Frequenzen his	600 MHz	bei Frequenzen his 600 MHz ode: als NF-Verstarker
Cathode; oxide coated Vf	12.6 V	Cathode; oxide coated Vf = 6.3 12.6 V

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Cathode; oxyde If	650 mA	Cathode; oxyde If = 1.3 0.65 A
Plate voltage	600 V	Cooling Va = 600 V up to 150 Mc/s
Plate voltage	150 MHz	Cooling Va = 600 V up to 150 Mc/s
Plate voltage	500 V	Cooling Va = 500 V up to 200 Mc/s
Plate voltage	200 MHz	Cooling Va = 500 V up to 200 Mc/s
Plate voltage	300 V	Cooling Va = 300 V up to 430 Mc/s
Plate voltage	430 MHz	Cooling Va = 300 V up to 430 Mc/s
Plate voltage	600 V	Cooling Va = 600 V jusqu'a 150 MHz
Plate voltage	150 MHz	Cooling Va = 600 V jusqu'a 150 MHz
Plate voltage	500 V	Cooling Va = 500 V jusqu'a 200 MHz
Plate voltage	200 MHz	Cooling Va = 500 V jusqu'a 200 MHz
Plate voltage	300 V	Cooling Va = 300 V jusqu'a 430 MHz
Plate voltage	430 MHz	Cooling Va = 300 V jusqu'a 430 MHz
Plate voltage	600 V	Cooling Va = 600 V Ms 150 MHz
Plate voltage	150 MHz	Cooling Va = 600 V Ms 150 MHz
Plate voltage	500 V	Cooling Va = 500 V Ms 200 MHz
Plate voltage	200 MHz	Cooling Va = 500 V Ms 200 MHz
Plate voltage	300 V	Cooling Va = 300 V bis 430 MHz
Plate voltage	430 MHz	Cooling Va = 300 V bis 430 MHz

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
See page	2.6 pF	Capacitances See page 2 for internal Ca = 2.6 pF C0 = 1.6 pF
See page	1.6 pF	Capacitances See page 2 for internal Ca = 2.6 pF C0 = 1.6 pF
neutralisation (Cn. Cn')	7 pF	Capacitances neutralisation (Cn. Cn') 7.0 pF C1 = 4.4 pF
neutralisation (Cn. Cn')	4.4 pF	Capacitances neutralisation (Cn. Cn') 7.0 pF C1 = 4.4 pF
lisation interne(C0	0.08 pF	Capacitances lisation interne(CO3 ca') Cagt < 0.08 pF
siehe Seite	0.035 pF	Capacitances siehe Seite 2 (Cn. Cn') Cagt-Cn c 0.035 pF

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate current	20 mA	Typical characteristics Typical characteristics $\mu g2g1(I_a=20 \text{ mA}) = 8$
Transconductance	20 mA	Typical characteristics S (I 20 mA) 2.5 mA/V
Transconductance	2.5 mA/V	Typical characteristics S (I 20 mA) 2.5 mA/V
To Va	190 V	Class C telegraphy To Va 190 Va w0
Cooling Temperature of anode seals and bulb max	220 °C	Cooling Cooling Temperature of anode seals and bulb max. 220 °C
Temperature of bottom seals max	180 °C	Cooling Temperature of bottom seals max. 180 °C
Temperature des scellements max	180 °C	Cooling Temperature des scellements max. 180 °C
Caracteristiques limites Va = max	600 V	Maximum ratings Caracteristiques limites Va = max. 600 V
Wa = max	10 W	Maximum ratings Wa = max. 2x10 W
Screen-grid voltage	250 V	Maximum ratings Vg2 = max. 250 V
WB	1.5 W	Maximum ratings WB2 = max. 2x1.5 W
max	75 V	Maximum ratings max. 75 V
Ig = max	55 mA	Maximum ratings Ig = max. 2x55 mA
Control-grid current	2.5 mA	Maximum ratings Ig 1 = max. 2x2.5 mA
Vkf = max	100 V	Maximum ratings Vkf = max.. 100 V
f	200 MHz	Class C telegraphy f = 200 200 200 200 Mc/s
Plate voltage	200 V	Class C telegraphy Va = 600 400 300 200 V
Screen-grid voltage	200 V	Class C telegraphy Vg2 = 250 250 250 200 V
Plate current	50 mA	Class C telegraphy Ia = 2x50 2x50 2x50 2x50 mA
Screen-grid current	4 mA	Class C telegraphy Ig2 = 2x4 2x4 2x4.5 2x4 mA



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
quencies up to	600 Mc/s	ClassC
classe C & des fréquences jusqu'd	600 Mc/s	ClassC
bei Frequenzen bis	600 MHz	ClassC
Cathode: oxide coated vr = 6,3	12.6 V	ClassC
siehe Seite 2 (Cpy, Cn') Cagi~Cn ¢	0.035 pF	ClassC
gypicaé characteristics pg2g1(Ig	20 mA	ClassC
bei Frequenzen bisg	600 MHz	ClassC
gathode: oxide coated ve = 6,3	12.6 V	ClassC
Caractéristiques limites Va = max	600 V	ClassC;Telegraphy
Grenzdaten Wy = max., 2x1	0 W	Telegraphy
Vg2 = max,	250 V	Telegraphy
Wg2 = max, 2x1,	5 W	—
Ix = max., 2x5	5 mA	—
Ig1 = max, 2x2,	5 mA	—

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
See page 2 for %nterna}) Ca 2,6 0F Co	1.6 pF	ClassC;PushPull
Voir page 2 pour neutra-C8!1	7 pF	ClassC;PushPull
lisation interne(Cp, Cn') Cagt ¢	0.08 pF	ClassC;PushPull

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
See page 2 for internal Ca [1]	2.6 pF	PushPull
See page 2 for internal Ca [2]	1.6 pF	PushPull
sation interne(Cp, Cp') Cagt	< 0.08 pF	PushPull
gypicaé characteristics pg2gt(Ig	20 mA	PushPull
Kenndaten s ([1]	1 a	PushPull
Kenndaten s ([2]	20 mA	PushPull
Va [1]	600 V	PushPull
Va [2]	150 Mc/s	PushPull
Va [1]	500 V	PushPull
Va [2]	200 Mc/s	PushPull
Va [1]	300 V	PushPull
Va [2]	430 Mc/s	PushPull
Vg [1]	600 V	PushPull
Vg [2]	150 KHz	PushPull
Vg [1]	500 V	PushPull
Vg [2]	200 MHz	PushPull
Vg [1]	300 V	PushPull
Vg [2]	430 MHz	PushPull
ax	5 ma	PushPull
Va V up to	150 Mc/s	PushPull
Va	300 V	PushPull
max	220 °C	PushPull
Va = 600 Vv jusqu' a	150 MHz	PushPull
Va [2]	200 MHz	PushPull
Kilhlung Temperatur der Einschmelzungen max	180 °C	PushPull
gen wenn: Va [1]	600 V	PushPull
gen wenn: Va [2]	150 MHz	PushPull
Va [1]	900 V	PushPull
Va [2]	430 MHz	PushPull

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Kenndaten $s_{(1g)}$ [1]	20 ma	ClassC
Kenndaten $s_{(1g)}$ [2]	2.5 mA	ClassC

TUBE TINKER

An independent reference for electronic tubes, vacuum tubes,
and their source documents.

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