ELECTRONIC TUBE REFERENCE

YL1070

Power - Tetrode (NOT beam) electronic tube

CONSOLIDATED TECHNICAL DATA
2 SECTIONS
CONSTRUCTION
TETRODE-TETRODE

Matched dual power tetrode developed for linear single-sideband RF amplification. Two equivalent sections, low grid-to-plate feedback capacitance, and configurable heater connections make it suitable for balanced professional communications transmitter stages.

General characteristics

BASE DESIGNATION	–	**BASE PINS**	7
NOMINAL HEATER	12.6 V / 900 mA	**PARALLEL HEATER**	6.3 V / 1.8 A
HEATING	Indirect	**SERIES OPERATION**	Capable
CATHODE ARRANGEMENT	Separate cathodes	**SECTION CONSTRUCTION**	Similar

Section ratings

SECTION1 Tetrode

MAXIMUM PLATE VOLTAGE	1000 V
MAXIMUM SCREEN VOLTAGE	360 V
MAXIMUM PLATE DISSIPATION	34 W
MAXIMUM SCREEN DISSIPATION	7 W

Representative electrically identical section; repeated sections compressed per locked rule.

SECTION2 Tetrode

MAXIMUM PLATE VOLTAGE	1000 V
MAXIMUM SCREEN VOLTAGE	360 V
MAXIMUM PLATE DISSIPATION	34 W
MAXIMUM SCREEN DISSIPATION	7 W

Double tetrode intended for linear single-sideband RF amplification, with two electrically identical sections and series/parallel heater operation.

SOURCE OPERATING CONDITIONS

1999 Philips E-Z

SOURCE PDF

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**
YL1070: Heater voltage Ve = 6.3	**12.6 V**	—
Heater current Ir = 1.8	**900 mA**	—
g YL1071: Heater voltage Ve = 13.25	**26.5 V**	—
Heater current I = 0.866	**433 mA**	—
Frequency f up to 60 upto	**175 Mc/s**	ClassC
Anode input power Wi = max. 90 max	**75 V**	—
Anode dissipation W, = max. 30 max	**30 W**	—
Anode current I, = max. 110 max	**110 mA**	—
Grid No.2 voltage Vg2 = max. 300 max	**300 V**	—
Grid No.2 dissipation Wgz = max. 7 max	**7 W**	—
Negative grid No.l voltage — Vgl = max. 175 max	**175 V**	—
Cathode to heater voltage Vg = max. 100 max	**100 V**	—
Frequency f up to	**60 Mc/s**	ClassAB
Anode voltage V, = max. 1000 max	**1000 V**	—
Anode input power Wi, = max. 100 max	**110 W**	—

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Anode dissipation W, = max. 30 max	**34 W**	—
Grid No.2 voltage Vg2 = max. 360 max	**360 V**	—
Grid No.2 dissipation Wg2 = max. 3.5 max	**4 W**	—
Negative grid No.1 voltage — Vgl = max. 175 max	**175 V**	—
Grid No.1 current Igl = max. 5 max	**5 mA**	—
Frequency f	**7 Mc/s**	—
Anode voltage Va	**1000 A**	—
Grid No.2 voltage Vg2	**250 v**	—
Anode current Tota! = 50 195	**131 mA**	—
Grid No.2 current Ig2+g2- = 1.2 26	**11.5 mA**	—
Grid No.1 current Igl"'gl' = 0 0.01	**0.01 mA**	—
Anode input power Wigta' = 50 195	**131 W**	—
Anode dissipation Wata' = 50 54	**61 W**	—
Output power W = - 141	**1412 w**	—
Anode voltage Va	**800 v**	—
Grid No.2 voltage Vg2	**250 A**	—
Grid No.1 voltage Vgl	**-34 v**	—
Anode current Iota 50 197	**130 mA**	—
Grid No.2 current Ig2+g2' 1.2 26	**12.5 mA**	—
Grid No.l current Ig1+g1' 0 0.01	**0 mA**	—
Anode input power Wiata' = 40 158	**104 W**	—
Anode dissipation Wapg = 40 46	**43 W**	—
of the fifth order diS	**< -45 dB**	—
Anode voltage vV,	**600 A**	—

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid No.1 voltage Vg,	**-32.5 v**	—
voltage Vgl~p = 0 32.3	**32.5 V**	—
Anode current Iota = 60 212	**144 mA**	—
Grid No.2 current Ig2+g2' 1.9 25	**13.5 mA**	—
Grid No.l current Igl_,_glv 0 0.01	**0 mA**	—
Anode input power Wiata' = 36 127	**86 W**	—
Anode dissipation Worar = 36 88	**48 W**	—
Grid No.2 voltage Vgz	**250 A**	—
Grid No.1 voltage Vgl	**-36 v**	—
voltage Vgl~p = 0 36	**36 V**	—
Anode current | PRI = 35 216	**144 mA**	—
Grid No.2 current Ig2+g2' = 1 25	**13 mA**	—
Grid No.l current Igl‘*'gl' = 0 0.05	**0.02 mA**	—
Anode input power Wiara' = 55 216	**144 W**	—
Anode dissipation Wota' = 55 58	**65 W**	—
of the fifth order dig	**< -45 dB**	—
A Vg,	**250 V**	—
02 —	**15 v**	—
V92	**200 V**	—
Iq	**25 V**	—
fA)	**20 V**	—
—	**20 V**	—
005 (A) A 00% 00€ o0oc 00! 0	**0 S**	—
fi I	**~0.2 A**	—
(V) EF4 10,14 (v} B o	**100 mA**	—
600 V4 (V) 1000 0 200 400 600	**800 V**	—

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
9 B 1965.01.01	**10 C**	—

CAPACITANCE

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Anode to all other elements except grid No.l1 Cy	**3.15 pF**	—
Grid No.1 to all other elements except anode Cgl	**10.6 pF**	—
Anode to grid No.1 Cag]_	**< 0.09 pF**	—

CHARACTERISTIC

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Anode voltage vV,	**600 v**	—
Grid No.2 voltage Vg2	**250 v**	—
Anode current Iy	**40 mA**	—

Tube Tinker

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

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