ELECTRONIC TUBE REFERENCE

GU74B

Power - Tetrode (NOT beam) (over 1000V 100W) electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

TETRODE

Transmitting power tetrode designed for RF amplification, linear/SSB service, oscillation, modulation, broadcasting, or frequency multiplication.

General characteristics

BASE DESIGNATION	–	**BASE PINS**	–
NOMINAL HEATER	12.6 V / –	**PARALLEL HEATER**	– / –
HEATING	Indirect	**SERIES OPERATION**	Not specified
CATHODE ARRANGEMENT	Separate cathodes	**SECTION CONSTRUCTION**	Similar

Section ratings

SECTION1 Tetrode

MAXIMUM PLATE VOLTAGE	4000 V
MAXIMUM SCREEN VOLTAGE	300 V
MAXIMUM PLATE DISSIPATION	600 W
MAXIMUM SCREEN DISSIPATION	15 W
MAXIMUM GRID DISSIPATION	2 W
MAXIMUM CATHODE CURRENT	2.5 A

Promoted-field audit performed from English ratings/characteristics; detailed electrical values retained in parameter table. REDO promoted-field audit completed from English Limit Operating Values / Electrical Parameters tables.

The GU-74B tetrode is used in wideband non-tunable and single-sideband amplifier service at frequencies up to 250 MHz. It has an indirectly heated oxide-coated cathode and forced-air-cooled metal-ceramic construction.

SOURCE OPERATING CONDITIONS

1968 Electronintorg

SOURCE PDF

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

1968 ELECTRONINTORG

Section 1 · Tetrode

OTHER		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
anode; / — contact surfaces [1]	**1**	1-grid 1; 2, 4, 6 - cathode; 3, 7 — heater; 5, C2 — grid 2; A - anode; / — contact surfaces
anode; / — contact surfaces [2]	**1**	1-grid 1; 2, 4, 6 - cathode; 3, 7 — heater; 5, C2 — grid 2; A - anode; / — contact surfaces
anode; / — contact surfaces [3]	**2**	1-grid 1; 2, 4, 6 - cathode; 3, 7 — heater; 5, C2 — grid 2; A - anode; / — contact surfaces
anode; / — contact surfaces [4]	**4**	1-grid 1; 2, 4, 6 - cathode; 3, 7 — heater; 5, C2 — grid 2; A - anode; / — contact surfaces
anode; / — contact surfaces [5]	**6**	1-grid 1; 2, 4, 6 - cathode; 3, 7 — heater; 5, C2 — grid 2; A - anode; / — contact surfaces
anode; / — contact surfaces [6]	**3**	1-grid 1; 2, 4, 6 - cathode; 3, 7 — heater; 5, C2 — grid 2; A - anode; / — contact surfaces
anode; / — contact surfaces [7]	**7**	1-grid 1; 2, 4, 6 - cathode; 3, 7 — heater; 5, C2 — grid 2; A - anode; / — contact surfaces
anode; / — contact surfaces [8]	**5**	1-grid 1; 2, 4, 6 - cathode; 3, 7 — heater; 5, C2 — grid 2; A - anode; / — contact surfaces
anode; / — contact surfaces [9]	**2**	1-grid 1; 2, 4, 6 - cathode; 3, 7 — heater; 5, C2 — grid 2; A - anode; / — contact surfaces
temperature,°C [1]	**392 C**	yCKOpeHUueM, m/c? 392 Ambient temperature,°C .... —10to +55
temperature,°C [2]	**-10 C**	yCKOpeHUueM, m/c? 392 Ambient temperature,°C .... —10to +55
temperature,°C [3]	**55 C**	yCKOpeHUueM, m/c? 392 Ambient temperature,°C .... —10to +55
voltage (ACorDC), V	**12.6 V**	Hanpsi>xeHue Hakana (nepemMeHHoe nnu Heater voltage (ACorDC), V 12.6
voltage [1]	**33 uS**	Tok Hakana, A 3,3-3.9 Mutual conductance (at anode voltage 1,000 V,

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
voltage [2]	**-3.9 uS**	Tok Hakana, A 3,3-3.9 Mutual conductance (at anode voltage 1,000 V,
voltage [3]	**1000 uS**	Tok Hakana, A 3,3-3.9 Mutual conductance (at anode voltage 1,000 V,
voltage change [1]	**2 V**	KpyTusHa xapakTepucTykiu (Mpy HaNPsXKEHUAX grid 2 voltage 300 V, grid 1 voltage change 2.5V,
voltage change [2]	**300 V**	KpyTusHa xapakTepucTykiu (Mpy HaNPsXKEHUAX grid 2 voltage 300 V, grid 1 voltage change 2.5V,
voltage change [3]	**1 V**	KpyTusHa xapakTepucTykiu (Mpy HaNPsXKEHUAX grid 2 voltage 300 V, grid 1 voltage change 2.5V,
voltage change [4]	**2.5 V**	KpyTusHa xapakTepucTykiu (Mpy HaNPsXKEHUAX grid 2 voltage 300 V, grid 1 voltage change 2.5V,
current [1]	**1000 uA**	aHoga 1000 B, sTopoit ceTku 300 B, uameHeHun anode current 600 mA), mA/V .. .. L. 26-38
current [2]	**300 uA**	aHoga 1000 B, sTopoit ceTku 300 B, uameHeHun anode current 600 mA), mA/V .. .. L. 26-38
current [3]	**600 uA**	aHoga 1000 B, sTopoit ceTku 300 B, uameHeHun anode current 600 mA), mA/V .. .. L. 26-38
current [4]	**26 uA**	aHoga 1000 B, sTopoit ceTku 300 B, uameHeHun anode current 600 mA), mA/V .. .. L. 26-38
current [5]	**-38 uA**	aHoga 1000 B, sTopoit ceTku 300 B, uameHeHun anode current 600 mA), mA/V .. .. L. 26-38
grid [1]	**25 A**	HanpspkeHus nepeon ceTkn 2,5 B, Toke aHoga Anode current (at anode voltage 250 V, grid 2
grid [2]	**250 A**	HanpspkeHus nepeon ceTkn 2,5 B, Toke aHoga Anode current (at anode voltage 250 V, grid 2
grid [3]	**2 A**	HanpspkeHus nepeon ceTkn 2,5 B, Toke aHoga Anode current (at anode voltage 250 V, grid 2
voltage [1]	**600 V**	600 mA), MA/B 26-38 voltage 300 V), mA, atleast 1,400
voltage [2]	**26 V**	600 mA), MA/B 26-38 voltage 300 V), mA, atleast 1,400

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
voltage [3]	**-38 V**	600 mA), MA/B 26-38 voltage 300 V), mA, atleast 1,400
voltage [4]	**300 V**	600 mA), MA/B 26-38 voltage 300 V), mA, atleast 1,400
voltage [5]	**1400 V**	600 mA), MA/B 26-38 voltage 300 V), mA, atleast 1,400
voltage	**250 V**	Tok aHoga (Npu HanpsixxeHwsx aHoga 250 B, sTopown Negative bias voltage (at anode voltage
current [1]	**300 mA**	cetku 300 B), MA, He meHee 1400 1,000 V, grid 2 voltage 300 V, anode current
current [2]	**1400 mA**	cetku 300 B), MA, He meHee 1400 1,000 V, grid 2 voltage 300 V, anode current
current [3]	**1000 mA**	cetku 300 B), MA, He meHee 1400 1,000 V, grid 2 voltage 300 V, anode current
current [4]	**2 mA**	cetku 300 B), MA, He meHee 1400 1,000 V, grid 2 voltage 300 V, anode current
current [5]	**300 mA**	cetku 300 B), MA, He meHee 1400 1,000 V, grid 2 voltage 300 V, anode current
current [1]	**1000 A**	aHopa 1000 B, sTopon ceTkun 300 B, Toke aHoaa 2,500V, grid 2 voltage 300 V, anode current
current [2]	**300 A**	aHopa 1000 B, sTopon ceTkun 300 B, Toke aHoaa 2,500V, grid 2 voltage 300 V, anode current
current [3]	**2500 A**	aHopa 1000 B, sTopon ceTkun 300 B, Toke aHoaa 2,500V, grid 2 voltage 300 V, anode current
current [4]	**2 A**	aHopa 1000 B, sTopon ceTkun 300 B, Toke aHoaa 2,500V, grid 2 voltage 300 V, anode current
current [5]	**300 A**	aHopa 1000 B, sTopon ceTkun 300 B, Toke aHoaa 2,500V, grid 2 voltage 300 V, anode current
Interelectrode capacitance, pfF	**3 pF**	3anupanns oTpuUaTenbHOE (NMPU HANPSXKEHNUAX Interelectrode capacitance, pfF:
input [1]	**2500**	aHoga 2500 B, sTopown ceTku 300 B, Toke aHoAa input ... 46-56
input [2]	**300**	aHoga 2500 B, sTopown ceTku 300 B, Toke aHoAa input ... 46-56

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
input [3]	**46**	aHoga 2500 B, sTopown ceTku 300 B, Toke aHoAa input ... 46-56
input [4]	**-56**	aHoga 2500 B, sTopown ceTku 300 B, Toke aHoAa input ... 46-56
voltage [1]	**46 V**	BXOOHAS .. ... .ot 46-56 Cathode heating time (at heater voltage 12.6 V,
voltage [2]	**-56 V**	BXOOHAS .. ... .ot 46-56 Cathode heating time (at heater voltage 12.6 V,
voltage [3]	**12.6 V**	BXOOHAS .. ... .ot 46-56 Cathode heating time (at heater voltage 12.6 V,
voltage [1]	**9 V**	BBIXOAHAS . . oo otot it e e 9-13 anode voltage 1,000 V, grid 2 voltage 300 V),
voltage [2]	**-13 V**	BBIXOAHAS . . oo otot it e e 9-13 anode voltage 1,000 V, grid 2 voltage 300 V),
voltage [3]	**1000 V**	BBIXOAHAS . . oo otot it e e 9-13 anode voltage 1,000 V, grid 2 voltage 300 V),
voltage [4]	**2 V**	BBIXOAHAS . . oo otot it e e 9-13 anode voltage 1,000 V, grid 2 voltage 300 V),
voltage [5]	**300 V**	BBIXOAHAS . . oo otot it e e 9-13 anode voltage 1,000 V, grid 2 voltage 300 V),
voltage [1]	**126 V**	Hakana 12,6 B, anoga 1000 B, BTopoi (at anode voltage 2,000 V, grid 2 voltage 300 V,
voltage [2]	**1000 V**	Hakana 12,6 B, anoga 1000 B, BTopoi (at anode voltage 2,000 V, grid 2 voltage 300 V,
voltage [3]	**2000 V**	Hakana 12,6 B, anoga 1000 B, BTopoi (at anode voltage 2,000 V, grid 2 voltage 300 V,
voltage [4]	**2 V**	Hakana 12,6 B, anoga 1000 B, BTopoi (at anode voltage 2,000 V, grid 2 voltage 300 V,
voltage [5]	**300 V**	Hakana 12,6 B, anoga 1000 B, BTopoi (at anode voltage 2,000 V, grid 2 voltage 300 V,
current at most [1]	**150 A**	... ... 150 grid 1 voltage —60 V, grid 2 current at most
current at most [2]	**1 A**	... ... 150 grid 1 voltage —60 V, grid 2 current at most
current at most [3]	**-60 A**	... ... 150 grid 1 voltage —60 V, grid 2 current at most
current at most [4]	**2 A**	... ... 150 grid 1 voltage —60 V, grid 2 current at most

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
frequency [1]	**50 MHz**	MoulHOCTb BbIXOAHAR B pexxume knacca AB, 50 mA, frequency 0.1-1.0 MHz), W, least 550
frequency [2]	**0.1 MHz**	MoulHOCTb BbIXOAHAR B pexxume knacca AB, 50 mA, frequency 0.1-1.0 MHz), W, least 550
frequency [3]	**-1 MHz**	MoulHOCTb BbIXOAHAR B pexxume knacca AB, 50 mA, frequency 0.1-1.0 MHz), W, least 550
frequency [4]	**550 MHz**	MoulHOCTb BbIXOAHAR B pexxume knacca AB, 50 mA, frequency 0.1-1.0 MHz), W, least 550
voltage [1]	**300 V**	300 B, nepsoit ceTku —60 B, Toke (atanode voltage 2,000 V, grid 2 voltage 300 V,
voltage [2]	**-60 V**	300 B, nepsoit ceTku —60 B, Toke (atanode voltage 2,000 V, grid 2 voltage 300 V,
voltage [3]	**2000 V**	300 B, nepsoit ceTku —60 B, Toke (atanode voltage 2,000 V, grid 2 voltage 300 V,
voltage [4]	**2 V**	300 B, nepsoit ceTku —60 B, Toke (atanode voltage 2,000 V, grid 2 voltage 300 V,
voltage [5]	**300 V**	300 B, nepsoit ceTku —60 B, Toke (atanode voltage 2,000 V, grid 2 voltage 300 V,
current [1]	**50 mA**	BTOPOW ceTku He bonee 50 MA, 4actote 0,1-1,0 Ml'L), grid 1 voltage —70 V, grid 2 current
current [2]	**4 mA**	BTOPOW ceTku He bonee 50 MA, 4actote 0,1-1,0 Ml'L), grid 1 voltage —70 V, grid 2 current
current [3]	**1 mA**	BTOPOW ceTku He bonee 50 MA, 4actote 0,1-1,0 Ml'L), grid 1 voltage —70 V, grid 2 current
current [4]	**-10 mA**	BTOPOW ceTku He bonee 50 MA, 4actote 0,1-1,0 Ml'L), grid 1 voltage —70 V, grid 2 current
current [5]	**1 mA**	BTOPOW ceTku He bonee 50 MA, 4actote 0,1-1,0 Ml'L), grid 1 voltage —70 V, grid 2 current
current [6]	**-70 mA**	BTOPOW ceTku He bonee 50 MA, 4actote 0,1-1,0 Ml'L), grid 1 voltage —70 V, grid 2 current
current [7]	**2 mA**	BTOPOW ceTku He bonee 50 MA, 4actote 0,1-1,0 Ml'L), grid 1 voltage —70 V, grid 2 current
power under conditions of class B [1]	**300 W**	BTOpON ceTkn 300 B, nepsoit ceTku —70 B, Output power under conditions of class B
power under conditions of class B [2]	**-70 W**	BTOpON ceTkn 300 B, nepsoit ceTku —70 B, Output power under conditions of class B

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
voltage [1]	**6 V**	TOKe BTOpPON ceTku He 6onee 50 mA), nb: (at anode voltage 1,500 V, grid 2 voltage 275 V,
voltage [2]	**50 V**	TOKe BTOpPON ceTku He 6onee 50 mA), nb: (at anode voltage 1,500 V, grid 2 voltage 275 V,
voltage [3]	**1500 V**	TOKe BTOpPON ceTku He 6onee 50 mA), nb: (at anode voltage 1,500 V, grid 2 voltage 275 V,
voltage [4]	**2 V**	TOKe BTOpPON ceTku He 6onee 50 mA), nb: (at anode voltage 1,500 V, grid 2 voltage 275 V,
voltage [5]	**275 V**	TOKe BTOpPON ceTku He 6onee 50 mA), nb: (at anode voltage 1,500 V, grid 2 voltage 275 V,
current at most [1]	**-28 mA**	TpeTLero nopsaka, Hebonee . . .. —-28 grid 1 voltage —45 V, grid 2 current at most 60 mA),
current at most [2]	**1 mA**	TpeTLero nopsaka, Hebonee . . .. —-28 grid 1 voltage —45 V, grid 2 current at most 60 mA),
current at most [3]	**-45 mA**	TpeTLero nopsaka, Hebonee . . .. —-28 grid 1 voltage —45 V, grid 2 current at most 60 mA),
current at most [4]	**2 mA**	TpeTLero nopsaka, Hebonee . . .. —-28 grid 1 voltage —45 V, grid 2 current at most 60 mA),
current at most [5]	**60 mA**	TpeTLero nopsaka, Hebonee . . .. —-28 grid 1 voltage —45 V, grid 2 current at most 60 mA),
voltage (ACorDC),V [1]	**11.9 V**	HanpsikeHve, B: Heater voltage (ACorDC),V 11.9-13.3
voltage (ACorDC),V [2]	**-13.3 V**	HanpsikeHve, B: Heater voltage (ACorDC),V 11.9-13.3
voltage (DC),V ... ... il [1]	**3 V**	aHoaa (NMMKOBOE 3HAYEHWE) . .. . 4000 Grid 2voltage (DC),V ... ... il 300
voltage (DC),V ... ... il [2]	**4000 V**	aHoaa (NMMKOBOE 3HAYEHWE) . .. . 4000 Grid 2voltage (DC),V ... ... il 300
voltage (DC),V ... ... il [3]	**2 V**	aHoaa (NMMKOBOE 3HAYEHWE) . .. . 4000 Grid 2voltage (DC),V ... ... il 300
voltage (DC),V ... ... il [4]	**300 V**	aHoaa (NMMKOBOE 3HAYEHWE) . .. . 4000 Grid 2voltage (DC),V ... ... il 300

Tube Tinker

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

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