



ELECTRONIC TUBE REFERENCE

GU72

Power - Tetrode (NOT beam) electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

TETRODE

Soviet transmitting tetrode specifically for single-sideband RF power amplification to approximately 100 MHz.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	—
NOMINAL HEATER	26 V / —	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION 1 Tetrode	
MAXIMUM PLATE VOLTAGE	1800 V
MAXIMUM SCREEN VOLTAGE	700 V
MAXIMUM SCREEN DISSIPATION	15 W
<i>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.</i>	

The GU-72 tetrode is used for single-sideband power amplification at frequencies up to 100 MHz in RF transmitters.

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1968 Electronintorg

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
power	72 W	The 'Y-72 tetrode is used for single-sideband power
amplification at frequencies up to	100	amplification at frequencies up to 100 MHz in RF trans-
Cathode: indirectly heated, oxide-coated [1]	3	Cathode: indirectly heated, oxide-coated. 3, 7, 10 — ceTka BTOpen; 6 — NogorpesaTenb; A — aHOA; — KOHTAKTUpPYIOIan
Cathode: indirectly heated, oxide-coated [2]	7	Cathode: indirectly heated, oxide-coated. 3, 7, 10 — ceTka BTOpen; 6 — NogorpesaTenb; A — aHOA; — KOHTAKTUpPYIOIan
Cathode: indirectly heated, oxide-coated [3]	10	Cathode: indirectly heated, oxide-coated. 3, 7, 10 — ceTka BTOpen; 6 — NogorpesaTenb; A — aHOA; — KOHTAKTUpPYIOIan
Cathode: indirectly heated, oxide-coated [4]	6	Cathode: indirectly heated, oxide-coated. 3, 7, 10 — ceTka BTOpen; 6 — NogorpesaTenb; A — aHOA; — KOHTAKTUpPYIOIan
heater; A [1]	1	1, 4, 8 — cathode and heater; 2, 5, 9 - grid 1; 3, 7, 70 — grid 2; 6 — heater; A -
heater; A [2]	4	1, 4, 8 — cathode and heater; 2, 5, 9 - grid 1; 3, 7, 70 — grid 2; 6 — heater; A -
heater; A [3]	8	1, 4, 8 — cathode and heater; 2, 5, 9 - grid 1; 3, 7, 70 — grid 2; 6 — heater; A -
heater; A [4]	2	1, 4, 8 — cathode and heater; 2, 5, 9 - grid 1; 3, 7, 70 — grid 2; 6 — heater; A -
heater; A [5]	5	1, 4, 8 — cathode and heater; 2, 5, 9 - grid 1; 3, 7, 70 — grid 2; 6 — heater; A -
heater; A [6]	9	1, 4, 8 — cathode and heater; 2, 5, 9 - grid 1; 3, 7, 70 — grid 2; 6 — heater; A -

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
heater; A [7]	1	1, 4, 8 — cathode and heater; 2, 5, 9 - grid 1; 3, 7, 70 — grid 2; 6 — heater; A -
heater; A [8]	3	1, 4, 8 — cathode and heater; 2, 5, 9 - grid 1; 3, 7, 70 — grid 2; 6 — heater; A -
heater; A [9]	7	1, 4, 8 — cathode and heater; 2, 5, 9 - grid 1; 3, 7, 70 — grid 2; 6 — heater; A -
heater; A [10]	70	1, 4, 8 — cathode and heater; 2, 5, 9 - grid 1; 3, 7, 70 — grid 2; 6 — heater; A -
heater; A [11]	2	1, 4, 8 — cathode and heater; 2, 5, 9 - grid 1; 3, 7, 70 — grid 2; 6 — heater; A -
heater; A [12]	6	1, 4, 8 — cathode and heater; 2, 5, 9 - grid 1; 3, 7, 70 — grid 2; 6 — heater; A -
anode; / - contact surface	115	Height: at most 115 mm. anode; / - contact surface
voltage	300 uS	KpyTu3Ha xapakTepucTUKK (NPpU HanpsKeHusIX Mutual conductance (at anode voltage 300 V,
voltage change + [1]	300 V	anopa 300 B, sTopoi ceTku 250 B, usmerHerum grid 2 voltage 250 V, grid 1 voltage change + 2.5V,
voltage change + [2]	250 V	anopa 300 B, sTopoi ceTku 250 B, usmerHerum grid 2 voltage 250 V, grid 1 voltage change + 2.5V,
voltage change + [3]	2 V	anopa 300 B, sTopoi ceTku 250 B, usmerHerum grid 2 voltage 250 V, grid 1 voltage change + 2.5V,
voltage change + [4]	250 V	anopa 300 B, sTopoi ceTku 250 B, usmerHerum grid 2 voltage 250 V, grid 1 voltage change + 2.5V,
voltage change + [5]	1 V	anopa 300 B, sTopoi ceTku 250 B, usmerHerum grid 2 voltage 250 V, grid 1 voltage change + 2.5V,
voltage change + [6]	2.5 V	anopa 300 B, sTopoi ceTku 250 B, usmerHerum grid 2 voltage 250 V, grid 1 voltage change + 2.5V,
current [1]	25 uA	HanNpshKeHuA nepson ceTkn +2,5 B, Toke anode current 270 mA), mA/V 15-23
current [2]	270 uA	HanNpshKeHuA nepson ceTkn +2,5 B, Toke anode current 270 mA), mA/V 15-23
current [3]	15 uA	HanNpshKeHuA nepson ceTkn +2,5 B, Toke anode current 270 mA), mA/V 15-23

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
current [4]	-23 uA	HanNpshKeHuA nepson ceTkn +2,5 B, Toke anode current 270 mA), mA/V 15-23
voltage [1]	270 V	aHona 270 MA), MA/B 15-23 Gain coefficient (grid 1—grid 2) (at anode voltage 300 V,
voltage [2]	15 V	aHona 270 MA), MA/B 15-23 Gain coefficient (grid 1—grid 2) (at anode voltage 300 V,
voltage [3]	-23 V	aHona 270 MA), MA/B 15-23 Gain coefficient (grid 1—grid 2) (at anode voltage 300 V,
voltage [4]	1 V	aHona 270 MA), MA/B 15-23 Gain coefficient (grid 1—grid 2) (at anode voltage 300 V,
voltage [5]	2 V	aHona 270 MA), MA/B 15-23 Gain coefficient (grid 1—grid 2) (at anode voltage 300 V,
voltage [6]	300 V	aHona 270 MA), MA/B 15-23 Gain coefficient (grid 1—grid 2) (at anode voltage 300 V,
current [1]	1 mA	KoahmuueHT yeunexuns nepsom CETKU 1o BTOnon grid 2 voltage 200-250 V, anode current 270 mA) . . 7-12
current [2]	2 mA	KoahmuueHT yeunexuns nepsom CETKU 1o BTOnon grid 2 voltage 200-250 V, anode current 270 mA) . . 7-12
current [3]	200 mA	KoahmuueHT yeunexuns nepsom CETKU 1o BTOnon grid 2 voltage 200-250 V, anode current 270 mA) . . 7-12
current [4]	-250 mA	KoahmuueHT yeunexuns nepsom CETKU 1o BTOnon grid 2 voltage 200-250 V, anode current 270 mA) . . 7-12
current [5]	270 mA	KoahmuueHT yeunexuns nepsom CETKU 1o BTOnon grid 2 voltage 200-250 V, anode current 270 mA) . . 7-12
current [6]	7 mA	KoahmuueHT yeunexuns nepsom CETKU 1o BTOnon grid 2 voltage 200-250 V, anode current 270 mA) . . 7-12
current [7]	-12 mA	KoahmuueHT yeunexuns nepsom CETKU 1o BTOnon grid 2 voltage 200-250 V, anode current 270 mA) . . 7-12
voltage, V,atmost [1]	300 V	ceTke (npu Hanps>keHusAx aHoga 300 B, BTOnon Negative cutoff voltage, V,atmost 220

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
voltage, V,atmost [2]	220 V	ceTke (npu Hanps>keHusAx aHoga 300 B, BTopon Negative cutoff voltage, V,atmost 220
Interelectrode capacitance, pF [1]	200 pF	ceTku 200-250 B, Toke aHoga 270 MA) 7-12 Interelectrode capacitance, pF:
Interelectrode capacitance, pF [2]	-250 pF	ceTku 200-250 B, Toke aHoga 270 MA) 7-12 Interelectrode capacitance, pF:
Interelectrode capacitance, pF [3]	270 pF	ceTku 200-250 B, Toke aHoga 270 MA) 7-12 Interelectrode capacitance, pF:
Interelectrode capacitance, pF [4]	7 pF	ceTku 200-250 B, Toke aHoga 270 MA) 7-12 Interelectrode capacitance, pF:
Interelectrode capacitance, pF [5]	-12 pF	ceTku 200-250 B, Toke aHoga 270 MA) 7-12 Interelectrode capacitance, pF:
input,atmost	3	Hanps>xeHve 3annpaHusi oTpuLaTensHoe, input,atmost
output [1]	220	B,HEGONEGE 220 output ... 5-10
output [2]	5	B,HEGONEGE 220 output ... 5-10
output [3]	-10	B,HEGONEGE 220 output ... 5-10
voltage [1]	5 V	BBIXOAHAM ...ttt ie it 5-10 (at anode voltage 800 V, grid 2 voltage 300 V,
voltage [2]	-10 V	BBIXOAHAM ...ttt ie it 5-10 (at anode voltage 800 V, grid 2 voltage 300 V,
voltage [3]	800 V	BBIXOAHAM ...ttt ie it 5-10 (at anode voltage 800 V, grid 2 voltage 300 V,
voltage [4]	2 V	BBIXOAHAM ...ttt ie it 5-10 (at anode voltage 800 V, grid 2 voltage 300 V,
voltage [5]	300 V	BBIXOAHAM ...ttt ie it 5-10 (at anode voltage 800 V, grid 2 voltage 300 V,
current [1]	1 mA	MPOXOAHAN .. o i vttt et ee s 0,1 anode current 68 mA), W, atleast
current [2]	68 mA	MPOXOAHAN .. o i vttt et ee s 0,1 anode current 68 mA), W, atleast
power over	1000 W	MowHOCTb BbIXOAHAs B pexkume knacca AB npu Output power over 1,000 h of service, W
voltage, kV [1]	22 kV	HAKAMA « . ovvete e e e 22-27,2 Anode voltage, kV:
voltage, kV [2]	-272 kV	HAKAMA « . ovvete e e e 22-27,2 Anode voltage, kV:

