



ELECTRONIC TUBE REFERENCE

GU71B

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

CONSOLIDATED TECHNICAL
DATA

1 SECTION
CONSTRUCTION
PENTODE

Russian metal-ceramic pentode for single-sideband and RF power amplification to approximately 75 MHz. Forced-air cooling and professional construction support substantial transmitting power.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	—
NOMINAL HEATER	12.6 V / 3.3 A	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION1 Pentode	
MAXIMUM PLATE VOLTAGE	6500 V
MAXIMUM SCREEN VOLTAGE	400 V
MAXIMUM PLATE DISSIPATION	1500 W
MAXIMUM SCREEN DISSIPATION	32 W
MAXIMUM GRID DISSIPATION	3 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-71B pentode is used for single-sideband and RF power amplification at frequencies up to 75 MHz. It has an indirectly heated oxide-coated cathode, metal-ceramic construction, and forced-air cooling.

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 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
leHepaTOpHbIA NeHTOoA NY [1]	716	leHepaTOpHbIA NeHTOoA NY-716 npeaHasHa4eH ans The I'Y-71B pentode is used for single-sideband
leHepaTOpHbIA NeHTOoA NY [2]	71	leHepaTOpHbIA NeHTOoA NY-716 npeaHasHa4eH ans The I'Y-71B pentode is used for single-sideband
grid [1]	17	& {17 - heater; C1- grid 1;
grid [2]	1	& {17 - heater; C1- grid 1;
grid [1]	22	CONDITIONS o — 22_ grid 2sa grid 3
grid [2]	2	CONDITIONS o — 22_ grid 2sa grid 3
grid [3]	3	CONDITIONS o — 22_ grid 2sa grid 3
voltage (ACorDC), V [1]	126 V	Hanpsokenune Hakana{(~wwm=),B 12,6 Heater voltage (ACorDC), V 12.6
voltage (ACorDC), V [2]	12.6 V	Hanpsokenune Hakana{(~wwm=),B 12,6 Heater voltage (ACorDC), V 12.6
voltage (DC), V [1]	0 V	TPETBEM CETKM . .. oottt i e 0 Grid 2 voltage (DC), V ..., 5-17
voltage (DC), V [2]	2 V	TPETBEM CETKM . .. oottt i e 0 Grid 2 voltage (DC), V ..., 5-17
voltage (DC), V [3]	5 V	TPETBEM CETKM . .. oottt i e 0 Grid 2 voltage (DC), V ..., 5-17
voltage (DC), V [4]	-17 V	TPETBEM CETKM . .. oottt i e 0 Grid 2 voltage (DC), V ..., 5-17
voltage, absolute value, V [1]	5 V	BTOPOW CETKU (MOCTOAHHOG) oo v av et 5-17 Negative grid 1 voltage, absolute value, V,

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
voltage, absolute value, V [2]	-17 V	BTOPOW CETKU (MOCTOAHHOG) oo v av et 5-17 Negative grid 1 voltage, absolute value, V,
voltage, absolute value, V [3]	1 V	BTOPOW CETKU (MOCTOAHHOG) oo v av et 5-17 Negative grid 1 voltage, absolute value, V,
voltage [1]	3 A	(abcontoTHOE 3Ha4YeHne), He 6oree 80 Anode current (at heater voltage 11.3 V),
voltage [2]	6 A	(abcontoTHOE 3Ha4YeHne), He 6oree 80 Anode current (at heater voltage 11.3 V),
voltage [3]	80 A	(abcontoTHOE 3Ha4YeHne), He 6oree 80 Anode current (at heater voltage 11.3 V),
voltage [4]	11.3 A	(abcontoTHOE 3Ha4YeHne), He 6oree 80 Anode current (at heater voltage 11.3 V),
Mutual conductance, mA/V [1]	92 mA/V	Tok BTOpO ceTku, A, Hebonee 92 Mutual conductance, mA/V 52-72
Mutual conductance, mA/V [2]	52 mA/V	Tok BTOpO ceTku, A, Hebonee 92 Mutual conductance, mA/V 52-72
Mutual conductance, mA/V [3]	-72 mA/V	Tok BTOpO ceTku, A, Hebonee 92 Mutual conductance, mA/V 52-72
Voltage level of combination frequencies of [1]	52 V	KpyTusHa xapakTepycTuku, MA/B 52-72 Voltage level of combination frequencies of
Voltage level of combination frequencies of [2]	-72 V	KpyTusHa xapakTepycTuku, MA/B 52-72 Voltage level of combination frequencies of
current [1]	3 mA	TPETLErO U NATOro NOPAAKOB OTHOCUTENLHO (at anode voltage 3 kV, anode current 850 mA,
current [2]	850 mA	TPETLErO U NATOro NOPAAKOB OTHOCUTENLHO (at anode voltage 3 kV, anode current 850 mA,
frequency of [1]	2 Hz	HaNPspKEHUs1 OCHOBHOIO TOKa (Npu HanpshHkKeHun grid 2 current at most 92 mA and frequency of
frequency of [2]	92 Hz	HaNPspKEHUs1 OCHOBHOIO TOKa (Npu HanpshHkKeHun grid 2 current at most 92 mA and frequency of
heating time, s, atmost [1]	6 s	ceTku He 6onee 92 MA M HacToTe KonebaHwn Cathode heating time, s, atmost 210
heating time, s, atmost [2]	92 s	ceTku He 6onee 92 MA M HacToTe KonebaHwn Cathode heating time, s, atmost 210

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
heating time, s, atmost [3]	210 s	ceTku He 6onee 92 MA M HacToTe KonebaHwn Cathode heating time, s, atmost 210
power under class AB [1]	70 W	70 Mly), b, Hebonee -39 Oscillatory power under class AB,
power under class AB [2]	-39 W	70 Mly), b, Hebonee -39 Oscillatory power under class AB,
grid [1]	6 kV	Bpems pasorpesa katoga, ¢, He 6onee 210 amplification (at anode voltage 3 kV, grid 2
grid [2]	210 kV	Bpems pasorpesa katoga, ¢, He 6onee 210 amplification (at anode voltage 3 kV, grid 2
grid [3]	3 kV	Bpems pasorpesa katoga, ¢, He 6onee 210 amplification (at anode voltage 3 kV, grid 2
grid [4]	2 kV	Bpems pasorpesa katoga, ¢, He 6onee 210 amplification (at anode voltage 3 kV, grid 2
frequency of	92 Hz	KonebartenbHas MOLHOCTb B peXxume current at most 92 mA and frequency of
Interelectrode capacitance, pF [1]	3 pF	aHopa 3 kB, Toke BTOpoOA ceTku He 6onee Interelectrode capacitance, pF:
Interelectrode capacitance, pF [2]	6 pF	aHopa 3 kB, Toke BTOpoOA ceTku He 6onee Interelectrode capacitance, pF:
output,atmost [1]	13	 i, 1,3 output,atmost 35
output,atmost [2]	35	 i, 1,3 output,atmost 35
voltage (ACorDC),V [1]	12 V	HanpsxxeHnue Hakana (~vwm =),B 12- 13,2 Heater voltage (ACorDC),V 12- 13.2
voltage (ACorDC),V [2]	-132 V	HanpsxxeHnue Hakana (~vwm =),B 12- 13,2 Heater voltage (ACorDC),V 12- 13.2
voltage (ACorDC),V [3]	12 V	HanpsxxeHnue Hakana (~vwm =),B 12- 13,2 Heater voltage (ACorDC),V 12- 13.2
voltage (ACorDC),V [4]	-13.2 V	HanpsxxeHnue Hakana (~vwm =),B 12- 13,2 Heater voltage (ACorDC),V 12- 13.2
voltage, kV	3.5 kV	HanpsixeHue, B: Anode voltage, kV 3.5
voltage, kV [1]	35 kV	BHOAR .« ovvve e e 3,5-10° Peak anode voltage, kV 6.5
voltage, kV [2]	-10 kV	BHOAR .« ovvve e e 3,5-10° Peak anode voltage, kV 6.5

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
voltage, kV [3]	6.5 kV	BHOAR .« ovvve e e 3,5-10° Peak anode voltage, kV 6.5
voltage, absolute value, V [1]	400 V	BTOPOMCETKM ...t vveiinaenenennen 400 Grid 1 voltage, absolute value, V -100
voltage, absolute value, V [2]	1 V	BTOPOMCETKM ...t vveiinaenenennen 400 Grid 1 voltage, absolute value, V -100
voltage, absolute value, V [3]	-100 V	BTOPOMCETKM ...t vveiinaenenennen 400 Grid 1 voltage, absolute value, V -100
Dissipation, W	0 W	TPETBEM CETKU . . oo i aaen 0 Dissipation, W:
anode i [1]	1.5	Paccevsaman MOWHOCTDb, KBT: anode i 1.5-10°
anode i [2]	-10	Paccevsaman MOWHOCTDb, KBT: anode i 1.5-10°
frequency, MHz [1]	3 MHz	NEePBONCETKOA ovvuiunnnn.. 3 Operating frequency, MHz 75
frequency, MHz [2]	75 MHz	NEePBONCETKOA ovvuiunnnn.. 3 Operating frequency, MHz 75
heating time,s [1]	75 s	Pabouyagyactota, My 75 Cathode heating time,s 210
heating time,s [2]	210 s	Pabouyagyactota, My 75 Cathode heating time,s 210
anode and	210 C	Bpewms pasorpeBa Katoga, C 210 Temperature at stem, anode and
anode [1]	2	- — — — grid 2-anode; — — — — grid 2-anode;
anode [2]	2	- — — — grid 2-anode; — — — — grid 2-anode;
Grid Characteristic Curves	2	2/ Averaged Anode-Grid Characteristic Curves:

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