

ELECTRONIC TUBE REFERENCE

6F12P

Voltage Triode Pentode electronic tube

CONSOLIDATED TECHNICAL DATA

2 SECTIONS

CONSTRUCTION

PENTODE-TRIODE

Russian wide-band triode-pentode designed for broadband amplifier applications.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	9
NOMINAL HEATER	6.3 V / 330 mA	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Dissimilar

SECTION RATINGS

SECTION1 Triode	
TRANSCONDUCTANCE	0.019 S
AMPLIFICATION FACTOR	100
MAXIMUM PLATE VOLTAGE	250 V
MAXIMUM PLATE DISSIPATION	1 W
Electrical data extracted only from filename-designated tube block.	

SECTION2 Pentode	
TRANSCONDUCTANCE	0.019 S
MAXIMUM PLATE VOLTAGE	250 V
MAXIMUM SCREEN VOLTAGE	250 V
MAXIMUM PLATE DISSIPATION	4 W
MAXIMUM SCREEN DISSIPATION	1.7 W
Electrical data extracted only from filename-designated tube block.	

Wide-band triode-pentode for amplifier applications.

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

195X Russian

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

195X RUSSIAN

Section 1 · Triode

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	6.3 V	DJeKTpHieckHe NapaMeTpbl Electrical Parameters Haupsxesme Hakana, B 6,3 Heater voltage, V o s 6.3
Heater current	30 mA	Haupsxesme Hakana, B 6,3 Heater voltage, V o s 6.3 TOK HAKARA, MA e e 330+30 Heater current, MA uuuiiureennenenn 330£30
Heater current	30 mA	Haupsxesme Hakana, B 6,3 Heater voltage, V o s 6.3 TOK HAKARA, MA e e 330+30 Heater current, MA uuuiiureennenenn 330£30
Heater current	4 mA	TOK HAKARA, MA e e 330+30 Heater current, MA uuuiiureennenenn 330£30 Tpuoauas 4acTh Triode section
Published electrical data	4	Tpuoauas 4acTh Triode section
Plate voltage	150 V	Tpuoauas 4acTh Triode section Hanpsxenme avona, B 150 Anode voltage, V l 150
Plate voltage	125435 V	Hanpsxenme avona, B 150 Anode voltage, V l 150 TOKaHOMA, MA i ittt iiiineeneerannnas 12,5£3,5 Anodecurrent, MA ittt 125435
Plate voltage	68 V	Hanpsxenme avona, B 150 Anode voltage, V l 150 TOKaHOMA, MA i ittt iiiineeneerannnas 12,5£3,5 Anodecurrent, MA ittt 125435 ConpoTHBNeHHE B Lend Karoaa, kxOM

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance	4 mA/V	TOKaHOMA, MA i ittt iiiineeneerannnas 12,5f3,5 Anodecurrent, MA ittt 125435 ConpoTHBNeHHE B Lend Karoaa, kxOM 68 Resistance in cathode circuit, kOhm 68 KpyTusna xapakrepucTuka, MA/B
Transconductance	=0.3 mA/V	ConpoTHBNeHHE B Lend Karoaa, kxOM 68 Resistance in cathode circuit, kOhm 68 KpyTusna xapakrepucTuka, MA/B 19_4 Transconductance, mA/V oiin.. 19_4 OOpATHBIN TOK CETKH, MKA . ..
Transconductance	10020 mA/V	KpyTusna xapakrepucTuka, MA/B 19_4 Transconductance, mA/V oiin.. 19_4 OOpATHBIN TOK CETKH, MKA ccnuevennnnn =0,3 Inverse grid current, WA ool =0.3 KosbUIUHEHT yCHIEHHS o oo o
Amplification factor	2	OOpATHBIN TOK CETKH, MKA ccnuevennnnn =0,3 Inverse grid current, WA ool =0.3 KosbUIUHEHT yCHIEHHS o oo o v eiiv i nns 10020 Amplification factor et 100-2p
Amplification factor	2	KosbUIUHEHT yCHIEHHS o oo o v eiiv i nns 10020 Amplification factor et 100-2p

195X RUSSIAN

Section 2 · Pentode

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Published electrical data	150; 150	AHOMA &t vvneeseeneeneannanannaseanosesanns 150 anode ... i 150
Published electrical data	150; 2; 150	CETKM BTOPOM iviiiiiiininenennnnnn 150 grid 2 L 150
Published electrical data	1314; 13; 4	AHOMA .o ittie e e ineeae s nnieeannn 1314 AN0dE ... e 13+4
Published electrical data	=22; 2; =22	CETKH BTOPOM ittt iinenannnnas =22 Brid 2 L. =22
Transconductance	4 mA/V	CETKH BTOPOM ittt iinenannnnas =22 Brid 2 L. =22 ConporusiieHse B Leny karoaa, kOM 68 Resistance in cathode circuit, kOhm 68 KpyTuina xapaktepactaxu, MA/B 19_4 Transconductance, mA/V

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance	194 mA/V	ConporusiieHse B Leny karoaa, kOM 68 Resistance in cathode circuit, kOhm 68 KpyTuina xapaktepactaxu, MA/B 19_4 Transconductance, mA/V 194
Transconductance	=0.3 mA/V	KpyTuina xapaktepactaxu, MA/B 19_4 Transconductance, mA/V 194 OO6paTHblit TOK CETKM NEPBOH, MKA =0,3 Inverse grid 1 current, WA ool =0.3
Published electrical data	=0.3; 1; =0.3	OO6paTHblit TOK CETKM NEPBOH, MKA =0,3 Inverse grid 1 current, WA ool =0.3
Published electrical data	6.641; 6	BXOOHAA MEHTOMA . .o v oeieeereeeanennnn 6,641,6
Published electrical data	6.611; 6	pentode input 6.611.6
Published electrical data	1.9; 0.5	BBIXOMHAA MEHTOMA ... vvees v s eeeneannnnnns 1,9+0,5
Published electrical data	1.9; 0.5	pentode output iiii e 1.9+0.5
Published electrical data	=0.02	[POXOJHAA HEHTOMA . oo eeeaseeeuannnnnnns =0,02
Published electrical data	4.6; +14	BXOXHAN TPHOMA & oo oeneee e e e nannnnnns 4,6%+14
Published electrical data	461; 4	triodeinput i 461t1.4
Published electrical data	0.26; +0.08	BBHIXOMHASA TDHOMA . ..ooivvreosnrieennnnnnnnnn 0,26 +0,08
Published electrical data	0.2610; 08	triode QUtPUL 0.2610.08
Published electrical data	1.6; 0; 4	MPOXOJHAA TPHOJA et e 1,6+0:4
Published electrical data	1.6; 0; 4	triode transfer iiiL. 1.6+0-4
Published electrical data	3000; 4	DiexTpRYuekie napameTpsl B TeveHne 3000 4 skcruty-
Published electrical data	3000	Electrical parameters over 3000 operating hours:
Published electrical data	=2; =2	TPHOMA ..ottt it e e et =2 triode =2
Transconductance	<2 mA/V	TPHOMA ..ottt it e e et =2 triode =2 TIEHTOMR .o ciivte st et ie it ee e ieannds =2 pentode e <2 KPYTH3HA XapaKTepHCTHKH MA/B: transconductance, mA/V:

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance	=12 mA/V	TIEHTOMR .o ciivte st et ie it ee e ieannns =2 pentode e <2 KPYTH3HA XapaKTepHCTHKH MA/B: transconductance, mA/V: TPRAOHA . oo ve e e =12 triode =12
Transconductance	=12 mA/V	KPYTH3HA XapaKTepHCTHKH MA/B: transconductance, mA/V: TPRAOHA . oo ve e e =12 triode =12 13538 {01 ¢ R =12 pentode =12
Published electrical data	13538; 01; =12; =12	13538 {01 ¢ R =12 pentode =12

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Published electrical data	31	IlpenebHbie 31:a4eHHA JONYCTHMBIX Limit Values of Operating
Published electrical data	7; 5.7; 7; 5.7	HAKaHMA cooivnnnnnnnn.. 7 5,7 heater 7 5.7
Published electrical data	3000	pentode 3000
Published electrical data	250	TPHOAA e 250
Published electrical data	250	triode 250
Published electrical data	4	4HOMA NPH BKIIIOYEHUH HA XOJIOI-
Published electrical data	550; 550	OEHTOHA .. oovvvnnnnnn..... 550 pentode 550
Published electrical data	550	TPHOAR ... ovineeennnnann,.. 550 triode
Published electrical data	3; 400; 400	TPHOJA NpPH 3anepToit tamme ... 400 triode in cut-off valve 400
Published electrical data	250	CeTKH BTOpOH grid2 ... 250
Published electrical data	2	CeTKH BTOPOH meHTOAA IIpH pentode grid 2 on switching from
Published electrical data	0; 550; 550	BKIIIOYEHHH Ha XONMOAHY!0 nammny 550 cold ... 550
Published electrical data	100; 100	TPHOHR .. .ovvnnnn... 100 triode 100
Published electrical data	100; 100	MEHTONA .o vvvennnnn. 100 pentode 100

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Published electrical data	0	0pd OTPHUATETLHOM [OTEH- with heater at negative poten-
Published electrical data	100; 100	TPHOAA ..o vvveevnnnn. .. 100 triode 100
Published electrical data	100; 100	OEHTOOA - oo vveeeeannn.n 100 pentode 100
Published electrical data	22; 22	TMEHTOMAA . o\ v vvnivnnnnnnns 22 pentode 22
Published electrical data	5; 5	OEHTOAR + .o ovvvvnnnnnnn 5 pentode 5
Published electrical data	7; 3.5	(7 - S 3,5 triode
Bulb temperature	8 C	 35 paccemBacMas cetxoit Broipoit 0,4 atgrid2..... .. 0.4 Temnepatypa 6amiona (8 Haubosnee Bulb temperature (in hottest por-
Bulb temperature	230 C	paccemBacMas cetxoit Broipoit 0,4 atgrid2..... .. 0.4 Temnepatypa 6amiona (8 Haubosnee Bulb temperature (in hottest por- Harpero#t yacTu), °C 230 tion), °C ... ool 230
Bulb temperature	230 C	Temnepatypa 6amiona (8 Haubosnee Bulb temperature (in hottest por- Harpero#t yacTu), °C 230 tion), °C ... ool 230
Published electrical data	2	— aHoOnHO-CceTOYHbIE; 2 — KPYTH3HA XAPAKTEPYCTHKH
Transconductance	2 mA/V	Averaged anode-grid characteristics of triode: [— anode-grid; 2 — transconductance
Transconductance	63 mA/V	Averaged anode-grid characteristics of triode: [— anode-grid; 2 — transconductance Up=63V
Transconductance	63 mA/V	[— anode-grid; 2 — transconductance Up=63V
Published electrical data	35; =0	35 Ugr =0V
Published electrical data	40; 80; 120; 160; 200; 240; 260	40 80 120 160 200 240 260 UpY AR

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Published electrical data	63; 150; 2	Un=63 V, Ug=150 V — TOK aHoOma; 2 — KpyTU3HA XapaKTEPHCTHKH
Plate current	2 mA	Un=6,3V, Ua=150 V Un=63 V, Uy =150 V Averaged anode-grid characteristics of pentode: ! — anode current; 2 — transconductance
Plate current	150 mA	Un=63 V, Uy =150 V Averaged anode-grid characteristics of pentode: ! — anode current; 2 — transconductance Upn=63V, Ua=150V
Plate current	150 mA	! — anode current; 2 — transconductance Upn=63V, Ua=150V



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1981 Russian Tubes Katsnelson and Larionov

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

1981 RUSSIAN TUBES KATSNELSON AND LARIONOV

Section 1 · Triode

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Published electrical parameter	150 V	при (,=6,3 В, И,=150 В, В,=68 кОм, (с:=150 В
Published electrical parameter	<20 µA	Ток утечки между катодом и подогревателем НЕИ <20 мкА
Reverse current	<0.2 µA	Обратный ток сетки В . . . <0,2 мкА
Resistance	1 kΩ	Входное сопротивление на частоте 100 МГц 1 кОм
Published electrical parameter	130 Ω	шумов . . . ЕНЕ й 130 Ом
Published electrical parameter	4.2 пф	ВХОДНАЯ . г а в о а в о в в а в а 4,2 пф

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Screen current	<2.2 mA	Ток 2-й сетки . . в .. СОВОГ О 3 * <2,2 мА
Transconductance	4 mA/V	Крутизна — характеристики . . . э * 19_4 мА/В
Published electrical parameter	250 Ω	шумов , .. 250 Ом
Published electrical parameter	<0.02 pF	проходная & в е э о <<0,02 пФ
Service life	>2000 h	Наработка , в в о с е 2>2000 ч
Heater voltage	5.7--7 V	Напряжение накала . . . , .. в уеа Б5,7--7В
Published electrical parameter	800 V	пентода 800 В
Published electrical parameter	550 V	пентода 550 В
Screen voltage	250 V	Напряжение 2-й сетки . , 250 В
Screen voltage	550 V	Напряжение 2-й сетки пентода при включении лампы , 550 В
Published electrical parameter	5 V	пентода к. 5 Вт
Published electrical parameter	35 V	триода . . ке евое е 35 Вт
Dissipation / power	0.4 V	Мощность, рассеиваемая 2-й сеткой .. в .. 0,4 Вт
Published electrical parameter	160 V	Напряжение между катодом и подогревателем . , , 160 В
Published electrical parameter	22 MA	Ток катода КЕ 22 МА
Frequency	10–150 Hz	ускорение при вибрации на частотах 10—150 Гц . 2,5 @
Published electrical parameter	594 V	мя [д ОО ОН Г 7/ 594В
Published electrical parameter	76 %	76 % [ИТ&"Ё%> ©® Тарма
Published electrical parameter	2408 V	40 80 120 150 200 2408 В -2/# -2,0 -16-12-0,8-0,8 0
Published electrical parameter	170 V	при ин—9 В иат—100 В ис т—"—2 В иа п—170 В
Published electrical parameter	-15 V	= 140 В, 0.=—-15 В), мкА <30 —
Published electrical parameter	10 КОМ	Напряжение виброшумов (при !?а_10 КОМ),

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Frequency	50 MHz	на частоте 50 МГц, кОм.
Frequency	100 MHz	на частоте 100 МГц, кОм.
Published electrical parameter	2 kΩ	Напряжение виброшумов (при Ka_2 кОм), мВ
Published electrical parameter	14 mA	14 мА), В. ю. й
Published electrical parameter	10 mA	То же при токе катода не более 10 мА В
Published electrical parameter	1 a	мАа 1 9ФёП мя 1а Этат
Published electrical parameter	7708 V	//\, 2% Ирг=7708В ' ов
Published electrical parameter	0 %	И 0%" /'2
Published electrical parameter	4 A	15Ф4АП. Аналог РСГ84 я 2
Published electrical parameter	200 V	для 15Ф4П, РС184 при / =300 мА Оал=200 В Пд „_и_гоов
Published electrical parameter	-140 Ω	для 15Ф4АП при К„—570 Ом 1?...;—140 Ом
Published electrical parameter	2 кОМ	Напряжение виброшумов (при Ва =2 кОМ),
Published electrical parameter	4 V	* При О ср —4 В.
Published electrical parameter	12 V	** При и —12 В.
Published electrical parameter	8 V	*** При (1=—8 В.
Plate voltage	250 V	Напряжение анода . . . ке квает 250 В
Plate voltage	600 V	Напряжение анода в импульсе (т—18 мкс) 2 . , 600В
Published electrical parameter	12 MA	Ток катода . . ке зово, 12 МА
Dissipation / power	1 V	Мощность, раьсеиваемая анодом гж вн 1 Вт
Published electrical parameter	3 MΩ	при автоматическом смещении , 3 МОм
Published electrical parameter	1 MΩ	при фиксированном смещении 1 МОм
Dissipation / power	4 V	Мощность, рассеиваемая дномом ов 4 Вт

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Dissipation / power	1.7 V	Мощность, рассеиваемая 2-й сеткой , 1,7 Вт
Published electrical parameter	2 MΩ	при автоматическом смещении , 2 МОм
Published electrical parameter	7 a	АПа 75@97 оЙ» 75087 омА [7a 72 247 Т:
Published electrical parameter	88 a	1 РУа оа 88 а!