

ELECTRONIC TUBE REFERENCE

6Z49PD

Voltage Pentode - High Frequency (single) electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION
CONSTRUCTION
PENTODE

Sharp-cutoff Russian high-frequency pentode with approximately 15 mA/V transconductance for fixed-gain wideband amplification.

GENERAL CHARACTERISTICS

BASE DESIGNATION	B9A	BASE PINS	9
NOMINAL HEATER	6.3 V / 300 mA	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION1 Pentode	
PLATE RESISTANCE	100000 Ω
TRANSCONDUCTANCE	0.015 S
MAXIMUM SCREEN VOLTAGE	150 V
MAXIMUM PLATE DISSIPATION	2.85 W
MAXIMUM SCREEN DISSIPATION	0.52 W
MAXIMUM CATHODE CURRENT	22.5 mA
English-primary bilingual extraction; published ratings promoted where clear.	

PENTODE 6e490-1 XapaKTepHCTHKOH NpeJHa3HayeH 11 paboTsl B LIMPOKO- pentode has been designed for use in wide-band amplifiers.

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 · Pentode

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
PENTODE	1	PENTODE 6e490-1
BricokouactoTheI nenros	63	BricokouactoTheI nenros 6XK49I1-1 ϕ kxopoTkoiT The 63K4911-II high-frequency short-characteristic
XapaKTepHCTHKOH NpeJHa	11	XapaKTepHCTHKOH NpeJHa3HayeH 11 paboTsl B LIMPOKO- pentode has been designed for use in wide-band amplifiers.
CxeMa COeqHHEHHA	3	CxeMa COeqHHEHHA 3TEKTPONOB C BBIBOAAMHU:
Published electrical value	4	1 — xatom; 2 — ceTka nepepas; 3 — KaTon; 4 — NONOrpPEBaTeNb;
§§	8	§§5 " 5 — HOJOTpeBaTeNb; 6 — HE MOOKIIIIOYEH; 7 — aHOM; 8§ — CeTka
Published electrical value	9	5158 g ===1° ϕ TPETHA, IKPaH; 9 — CeTKa BTOpas
Published electrical value	319	319 I Diagram of electrodes-to-pins connection:
Published electrical value	5	1 — cathode; 2 — grid 1; 3 — cathode; 4 — heater; 5 — heater;
Published electrical value	3	6 — not connected; 7 — anode; 8 — grid 3 and screen;
Published electrical value	2	e 3 9 — grid 2
BrOpauuoHHbIe HATPY	600 Hz	BrOpauuoHHbIe HATPY3KH B AHANA30HE 4acTOT OT 5 Vibration: at frequencies from § to 600 Hz with
HBIE HATPY	80	HBIE HATPY3KH C YCKOPEHHEM O 75 g NpH MIUTETLHOCTH up to 75 g, at impact duration up to 80 ms. Single

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
yaapa mo	80	yaapa mo 80 mc. OQnHOYHBIE yaapHBIE HATPY3KH C YCKO-
Published electrical value	3	o 40 °C. [JapneHne OoKkpyxkarollei cpeasl 10 3 aT™. up to 3 atm.
HAKATIA oo ititeneaeaeasanereanennnnenenennns	6.3	HAKATIA oo ititeneaeaeasanereanennnnenenennns 6,3
heater e	6.3	heater e 6.3
CETKH BTOPOM iiiiitiinnennnnnnnnnn	150	CETKH BTOPOM iiiiitiinnennnnnnnnnn, 150
grid	150	grid 2 L. e 150
CeTKH TPETBEH t it iiniienrnnnnnn	0	CeTKH TPETBEH t it iiniienrnnnnnn 0
OTCEYKH INEKTPOHHOTO TOKA CETKH epBOi, He	60	OTCEYKH INEKTPOHHOTO TOKA CETKH epBOi, He 60~
grid	-1.1	grid 1 electron current cutoff ~-1.1
) C	300132	) C: 30032 heater o 300132
e c: P	4	e c: P 15+4 Anode ... e 15+4
CETKH BTOPO! .. vvviteiininnniiienannnnnnnn	1	CETKH BTOPO! .. vvviteiininnniiienannnnnnnn. 2,5%1
aHoNa B HayaJle XapaKTEPYCTHKY (TIPH HANPSKEHAH anode, cutoff, at grid	3 V	aHoNa B HayaJle XapaKTEPYCTHKY (TIPH HANPSKEHAH anode, cutoff, at grid 1 voltage —8 V =10x10-3
ceTku mepsoit –	3	ceTku mepsoit —8B) =<10-10-3
Resistance in cathode circuit for automatic bias, Ohm	80 Ohm	Resistance in cathode circuit for automatic bias, Ohm 80
CMEIEHHS, OM e	5 kOhm	CMEIEHHS, OM e 80 Input resistance at 60 MHz, kOhm 5
BxonHoe conpoTusiieHne Ha yactote	60	BxonHoe conpoTusiieHne Ha yactote 60 MI'u, xOm §
Internal resistance, MOhm	0.1 MOhm	Internal resistance, MOhm 0.1
BryTpenuee conporuBiaenne, MOM	0.1	BryTpenuee conporuBiaenne, MOM 0,1
Published electrical value	0.35 kOhm	3KBHBAIEHTHOE COTNPOTHBIEHHE IMyMOB, KOM 0,35 Equivalent noise resistance, kOhm 0.35

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
KpyTH	3.5 V	KpyTH3Ha xapakrepucTuky, MA/B oL 17,3+3,5 Transconductance, mA/V o, 17.5±3.5
Inverse grid	-2 V	Inverse grid 1 current, at grid 1 voltage —2 V and
nepBoit —	0.5	nepBoit —2 B u conporusnerux B ee uenu 0,5 MOm),
resistance	0.05 MOhm	resistance 0.5 MOhm in grid 1 circuit, gA =0.05
BXOHHA B paGOYEM PEXHME	12	BXOHHA B paGOYEM PEXHME 12 input, under operating conditions 12
BXOIHAM .t veetvneschenoneanvanaananeenan	2	BXOIHAM .t veetvneschenoneanvanaananeenan 7.8%+1,2 151113 S PP 7.831.2
Published electrical value	0.4	7:¥: QNN 2,71+0,4 OUEPUL .ottt ittt
e iineennnnns =<	0.03	e iineennnnns =<0,03 transfer ...
KaTOA — MOJOTPEBATENb ovvvevnnnnnn	2	KaTOA — MOJOTPEBATENb ovvvevnnnnnn.. 4,5+2 cathode-to-heater
DnekTpryeckHe mapameTpsl B Teyenne	0 V	DnekTpryeckHe mapameTpsl B Teyenne 10 000 v axc-
Electrical parameters over	10	Electrical parameters over 10,000 operating hours:
transconductance, mA/V L =	11 V	transconductance, mA/V L =11
KPYTH	11 mA	KPYTH3HA XapaKTepycTHkd, MA/B =11
inverse grid	2 A	inverse grid 1 current, A =2
00paTHLI TOK CETKM MEPBOH, MKA =	2	00paTHLI TOK CETKM MEPBOH, MKA =2
Published electrical value	15	 =+15 change in transconductance, % =15
HAKAMA . ovvvevreennnnnnns	6	HAKAMA . ovvvevreennnnnnns 6,6 6
heater	6	heater , 6.6 6
aHoOa Npy	3	aHoOa Npy 3aneproif namne (npy
TOKE aHoza He Gonee SMKA)	300	TOKE aHoza He Gonee SMKA) ... 300
current at most	300	current at most 5 pA 300
CETKM BTOPO#A vovvnnnnnn	150 A	CETKM BTOPO#A vovvnnnnnn. 150

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
grid	150	grid2 ol 150
CETKM BTOP0ii NpH	3	CETKM BTOPOii NpH 3anepToii nam-
grid	2	grid 2 in cut-off valve, at anode
current at most SpA	300	current at most SpA 300
SMKA) oo e	300	SMKA) oo e 300
gridl ..., --	100	gridl ..., --100
CeTKM NEPBOM	100	CeTKM NEPBOM - 100
between cathode and heater	100	between cathode and heater 100
TIEM ¢ teiee s e	225 mA	TIEM ¢ teiee s e 100 Cathode current, mA 225
Toxk Katoma, MA	22.5 mA	Toxk Katoma, MA 22,5
pacceMbaemMas aHOAOM	2.85	pacceMbaemMas aHOAOM 2,85 atanode 2.85
paccemBaemast ceTko BTopoit	0.52	paccemBaemast ceTko BTopoit 0,52 atgrid 2 ...l 0.52
ConpoTHBICHHE B LIeMH CETKU Nep-Resistance in grid	0.5 MOhm	ConpoTHBICHHE B LIeMH CETKU Nep-Resistance in grid 1 circuit, MOhm 0.5
BO, MOM	0.5	BO, MOM 0,5
Warm up period, s	40	Warm up period, s 40