



ELECTRONIC TUBE REFERENCE

6I1PEV

Voltage - Radio Detector Converter electronic tube

CONSOLIDATED TECHNICAL DATA

2 SECTIONS

CONSTRUCTION

HEPTODE-TRIODE

Soviet 6I1P-EV rugged long-life triode-heptode frequency converter with shared cathode and 6.3 V 300 mA heater.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	9
NOMINAL HEATER	6.3 V / 300 mA	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Common cathode	SECTION CONSTRUCTION	Dissimilar

SECTION RATINGS

SECTION1 Triode	
TRANSCONDUCTANCE	0.0023 S
AMPLIFICATION FACTOR	18
MAXIMUM PLATE VOLTAGE	250 V
MAXIMUM PLATE DISSIPATION	0.75 W
MAXIMUM CATHODE CURRENT	10 mA
6I1P-EV shared cathode triode. Max plate 250 V, dissipation 0.75 W, cathode current 10 mA. Typical V_a 100 V I_a 6.8 mA, g_m 0.0023 A/V, μ 18 ± 3 . C input/output/transfer 2.5/1.9/1.15 pF. Cold switching 500 V separate, heater-cathode heater positive 150 V, heater negative 200 V.	

SECTION2 Heptode	
MAXIMUM PLATE VOLTAGE	300 V
MAXIMUM PLATE DISSIPATION	1.55 W
MAXIMUM CATHODE CURRENT	12.5 mA
<i>6I1P-EV shared cathode heptode. Max plate 300 V, dissipation 1.55 W, cathode current 12.5 mA, screens2+4 dissipation 0.9 W. Typical Va 250 V, Ia 3.55 mA, conversion conductance 0.00075 A/V (NOT ordinary gm), internal resistance 0.7 MΩ. C grid1 input 5.1 pF, grid3 input 5.9 pF, output 6.1 pF. Cold switching 500 V separate.</i>	

The 6UIIT-EB triode-heptode has been designed for pa30BaHUA YaCTOTHI.

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
Published electrical parameter	22.5 mA	\$22,5max
Source symbol grid	2 A	!l — grid 2 and grid 4; 2 — grid 1; 3 — cathode, grid 5 and
Screen	5 A	!l — grid 2 and grid 4; 2 — grid 1; 3 — cathode, grid 5 and
Source symbol AMana3oHe	4 A	BubpamioHHbIE Harpy3kKH B AMana3oHe 4acToT OT 5 Vibration: at frequencies from 5 to 600 Hz with
Source symbol OT	5 V	BubpamioHHbIE Harpy3kKH B AMana3oHe 4acToT OT 5 Vibration: at frequencies from 5 to 600 Hz with
Source symbol to	600 Hz	BubpamioHHbIE Harpy3kKH B AMana3oHe 4acToT OT 5 Vibration: at frequencies from 5 to 600 Hz with
Published electrical parameter	3 A	oo 40 °C. laBneHne OKpyXarui cpeia 10 3 aTM. pressure: up to 3 atm.
Source symbol to	3 A	oo 40 °C. laBneHne OKpyXarui cpeia 10 3 aTM. pressure: up to 3 atm.
Source symbol et	6.3 V	HAKAMd n.. et te et 6,3 Voltage, V:
Published electrical parameter	2 V	aHoda rentoga (TMpU NePeMEHHOM HaTPAKEHHH voltage —2V ... 6.8x3
Plate	3 A	CeTKH TpeTbeit M ceTku Tpuona 8,5 B add. u co- heptode anode, at alternating grid 3 and triode grid
Published electrical parameter	3.55+1.45 V	NPOTHBIEHOM B UX Hensax 47 kOM) 3,55+1,45 voltage 8.5 V (r.m.s.) and resistance 47 kOhm in grid

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Source symbol voltage	8.5 V	NPOTHBIEHUM B UX Hensax 47 kOM) 3,55+1,45 voltage 8.5 V (r.m.s.) and resistance 47 kOhm in grid
Screen	3 A	NpsXeHUH CETKH TpeTheidl M ceTKU TpHona 8,5 B grid 2 and grid 4, at alternating grid 3 and triode
Source symbol grid	3 A	CETKH TpeTbeH H CeTKH Tpuola (IpH NEepeMEHHOM in grid 3 and triode grid circuits 6.75+2.75
Resistance	3 V	HRM CeTKH TpeTheit —10,5B), MOM 0,7-0,3 Internal resistance of heptode, at grid 3 voltage
Published electrical parameter	10.5 V	KpyTH3HA XapaKTepACTHKH TpHOZA (IIPH HANIPSOKEHAU —10.5 V,MOhm ... 0.7-φ.3
Transconductance	3 V	ceTkH TpeTheit 0 B, cetku Tproma —2 B), MA/B 2,3...0,6 Triode transconductance, at grid 3 voltage 0 V and
Transconductance	0 V	ceTkH TpeTheit 0 B, cetku Tproma —2 B), MA/B 2,3...0,6 Triode transconductance, at grid 3 voltage 0 V and
Source symbol voltage	0.7 V	Tpuona 8,5 B 3bd. B comporEBieHuH B BX HenaAx voltage 0.7 V (r.m.s.), alternating grid 3 and triode
Source symbol voltages	8.5 V	47 xOM), MA/B ... e 0,75 grid voltages 8.5 V (r.m.s.) and resistance 47 kOhm
Source symbol grid	1 V	3φd., ceTkn Tperbedl ® ceTxu Tpuomos 8,5 B add. u grid 1 voltage 0.7 V (r.m.s.), aiterating grid 3 and
Source symbol voltage	250 V	HanpsKeHWHA CETKH NepBoil — 28,5 B # CONpOTHBICHEH grid 4 supply source voltage 250 V, grid 1 voltage
Published electrical parameter	28.5 V	B LenU CeTOK BTOpoi M yermeproï 24 xOMm), MKA/B =3 —28.5 V and resistance 24 kOhm in grid 2 and grid 4
Resistance	2 A	B LenU CeTOK BTOpoi M yermeproï 24 xOMm), MKA/B =3 —28.5 V and resistance 24 kOhm in grid 2 and grid 4
Amplification factor	3 A	CeTKH TpeThel M ceTkd Tproma O B) 18+3 Triode amplification factor, at grid 3 and triode grid
Source symbol 0	6 pA	O6paTHBI! TOK ceTKY NEPBOii (IpH HANPAXKEHHH CETKH ZerO VOItAZES .. ittt i i e e 18+3

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Source symbol nnnnnnnn.	59+0.9 W	MO CETKE TPETBEH cvviinnnnnnnnnn. 59+0,9 withregardto grid
Source symbol cnnnnenen	6.1+1.1 W	BbIXODHAA TEOTOMR « . oo vt vee e cvaarencnnnnenen 6,1+1,1 with regard to grid 3 5.9+0.9
Source symbol Teyenue	5000 V	JnekTprueckue napamerpsl B Teyenue 5000 v sxcmy- heptode throughput covinnn =0.007
Source symbol ncerennns	300 A	TEHTORA ..vvvuvncerenenns 300 anode:
Published electrical parameter	2 mA	2MA) L 300 grid 2 and grid 4, at grid 2 and
Screen	2 A	2MA) L 300 grid 2 and grid 4, at grid 2 and
Source symbol most	2 mA	aHONOB MEHTOAR M TPHOAA, grid 4 current at most 2 mA 300
Source symbol nrescanne	1.55 A	TENTOHA oevvvvvunrescanne 1,55 at heptode anode 1.55
Source symbol NN	750 mA	(0 ¢: NN 0,75 at triode anode 0.75
Source symbol e	0 V	YETBEPTOR 0e0vvnn. 0,9
Source symbol most	200 V	JKEHWH aHoma He Gonee 200 B at most 200 V and anode power
Dissipation	1.3 W	H MOIHOCTH, pACCEHBAAEMOHR aHO- dissipation at most 1.3 W 2
Source symbol ottt.	35 W	BpemAroroBHOCTA,C ottt. 35 Warm up period, s 35



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

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Published electrical parameter	170 V	дд =170В /5@А\ъ ё/ 720
Published electrical parameter	5 %	5 % ниатюрное (рис. 21П). Масса 20 г.
Published electrical parameter	0 V	при Ив=6,3 В, И,т=100 В, Исл=—? В (для ЕСН81 Ис=0 В),
Published electrical parameter	1 в	Наименование 6И1 ви!П-В 6И!П-ЕВ ЕСН81
Published electrical parameter	5 A	3.6Ё1’5 А
Published electrical parameter	<0.0 %	анодом триода , <0,0% <0,06 <0,06 <0,06
Published electrical parameter	-0.5 V	* Для ЕСН8! при !}с1 =---0,5 В,
Published electrical parameter	5 %	дом и подогревателем, В]005 %(2)05 %ООГ 100
Published electrical parameter	5–600 Hz	5—600 Гц @ й 2,5 Ю 10 —
Published electrical parameter	200 V	0 20 #0 60 60 100720 160 180 200 В 8-10-8 -6-4-2 0
Published electrical parameter	50 V	ЦР63В Е0а в50В /’,’д
Published electrical parameter	100 V	78 _ Исё ОЕ 100В з ОВ ЛЙ
Published electrical parameter	0 в	72 27 0В Из=0в 1...,*/ 00 у’ъм ‘Ё

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