



ELECTRONIC TUBE REFERENCE

10Z12S

Voltage Pentode - High Frequency (single) electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

PENTODE

Russian high-frequency voltage-amplifier pentode designed for long-distance wire communication systems. Manufacturer data specify a 1,000-hour guaranteed service life and operating characteristics for high-frequency signal amplification in communications equipment.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	8
NOMINAL HEATER	10 V / 320 mA	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION 1 Pentode	
TRANSCONDUCTANCE	0.00185 S
MAXIMUM PLATE VOLTAGE	250 V
MAXIMUM SCREEN VOLTAGE	180 V
MAXIMUM PLATE DISSIPATION	1.9 W
MAXIMUM SCREEN DISSIPATION	0.4 W
Russian 10Zh12S / 10Z12S indirectly heated high-frequency pentode, octal eight-pin base for long-distance wire communication voltage amplification. Nominal heater approximately 10 V, 320 mA (source 10 ± 1 V), maximum plate voltage 250 V, screen voltage 180 V, plate dissipation 1.9 W, screen dissipation 0.4 W. Typical transconductance 1.85 mA/V with manufacturer tolerance ~ 0.25 mA/V; previous $\mu=10$ is unsupported and cleared. Manufacturer guarantees 1000 h service and gives -60 to $+70$ °C ambient range; distinguish measured operating from limiting values.	

The 10)K12C pentode is designed for high-ire- HampsixKeHHs1 BBICOKOM YacToThl B YCTpPoOHCTBAX quency voltage amplification in long-distance HaJbHeld IPOBOIHON CBS3H.

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
Source symbol CBS	3 h	HaJbHeld IPOBOIHON CBS3H. wire service systems.
Source symbol B0	3 A	IMenroxnt 100K12C ycrofiuusel K BO3AEHCTBHIO
Source symbol arosednocts	1000 μ A	FapantupoBannas jgoarosednocts 1000 uacos. Service life guarantee: 1000 hr.
Service life	1000 h	FapantupoBannas jgoarosednocts 1000 uacos. Service life guarantee: 1000 hr.
Source symbol U,	10 $\pm$ 1 V	U, 10x1V Ug O K < 14%
Source symbol I,	320 mA	I, 320 mA I, 55+15mA S 185025 mA/V
Source symbol I,	55+15 mA	I, 320 mA I, 55+15mA S 185025 mA/V
Source symbol S	185025 mA/V	I, 320 mA I, 55+15mA S 185025 mA/V
Source symbol U,	250 V	U, 250V Iy 1,05+055 mA \$2) 145 mA/V
Source symbol Iy	1.05+055 mA	U, 250V Iy 1,05+055 mA \$2) 145 mA/V
Published electrical parameter	145 mA/V	U, 250V Iy 1,05+055 mA \$2) 145 mA/V
Source symbol Upg	135 V	Upg 135V P,y >04W R, 500 kQ
Source symbol P,y	>04 W	Upg 135V P,y >04W R, 500 kQ
Source symbol R,	500 k Ω	Upg 135V P,y >04W R, 500 kQ
Source symbol U,	-3 V	U, -3V
Published electrical parameter	19 V	)P U e =19 V, R, =60 k2.
Published electrical parameter	300 mA	1 1, =300 mA.
Source symbol Cgix	58 $\pm$ 12 pF	Cgix 58=12 pF

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Source symbol Ch	125+35 pF	Ch 125+35 pF
Source symbol Cgla	0.03 pF	Cgla 0,03 pF
Source symbol U,	107 V	U, 107V 93V
Source symbol V	93 V	U, 107V 93V
Source symbol Ug2	180 V	Ug2 180 V
Source symbol P,	19 W	P, 19W
Source symbol Pgg	4 W	Pgg 04 W
Source symbol Uy	150 V	Uy 150V
Published electrical parameter	15.5 mA	15,5 max 10,5 max
Source symbol max	10.5 mA	15,5 max 10,5 max
Published electrical parameter	125 mA	125 max
Source symbol l	7 V	\ Uy{=17V / 5 ~=>
Published electrical parameter	7 A	Ny <=7 AV Ay,
Source symbol S	6 A	S 6 A 3V AN4W4 50!
Source symbol A	3 V	S 6 A 3V AN4W4 50!
Source symbol AN	4 W	S 6 A 3V AN4W4 50!
Published electrical parameter	17 A	4 DY '4*' 17 AL L/) fb/v?
Published electrical parameter	2 V	. v//2V pAv.ay. =+
Published electrical parameter	2214 A	S A A 0 g el sk s s o, #2214 AP
Published electrical parameter	200 μA	g 100 200 Ua,V Uy/,l/? - -5 -4 -3 72 -1 g
Published electrical parameter	425 mA	I, I, = 425 mA —_ [, =425 mA
Published electrical parameter	135 V	- - =1, Uy =135V — — —1y U, =250 V
Published electrical parameter	250 V	- - =1, Uy =135V — — —1y U, =250 V