



ELECTRONIC TUBE REFERENCE

6N13S

Power - Triode electronic tube

CONSOLIDATED TECHNICAL DATA

2 SECTIONS

CONSTRUCTION

TRIODE-TRIODE

Low-mu high-current power triode intended for electronic voltage-regulator series-pass service. Its low plate resistance and substantial cathode-current capability make it suited to controlling regulated DC supplies rather than conventional voltage amplification.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	—
NOMINAL HEATER	6.3 V / 2.5 A	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION1 Triode	
PLATE RESISTANCE	460 Ω
TRANSCONDUCTANCE	0.0055 S
MAXIMUM PLATE VOLTAGE	250 V
MAXIMUM PLATE DISSIPATION	13 W
MAXIMUM CATHODE CURRENT	130 mA
Bilingual Russian/English datasheet; English text used as primary extraction source.	

SECTION2 Triode	
PLATE RESISTANCE	460 Ω
TRANSCONDUCTANCE	0.0055 S
MAXIMUM PLATE VOLTAGE	250 V
MAXIMUM PLATE DISSIPATION	13 W
MAXIMUM CATHODE CURRENT	130 mA

The 6H13C double triode is designed for ope- 60THl B 3JEKTPOHHBIX CcTabunusaTopax.

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
Source symbol to	989 A	+70°C u OTHOCHTENbHOH BaaxHocTu 95—98% npu tive humidity of 95 to 989 at +20°C, as well as
Source symbol oseddocTb	1000 W	TapanrtdpoBantas aoaroseddocTb 1000 wacos. Service life guarantee: 1000 hr.
Source symbol U,	63 V	U, 63V I,)) 76 %36 mA
Published electrical parameter	36 mA	U, 63V I,)) 76 %36 mA
Source symbol L,	25+025 A	L, 25+025A S 55+1,6 mA/V
Source symbol S	55+1.6 mA/V	L, 25+025A S 55+1,6 mA/V
Published electrical parameter	<460 Ω	u, 9%V R 1) <460 Q
Published electrical parameter	30 V	Ugr —30V R, 250 Q
Source symbol R,	250 Ω	Ugr —30V R, 250 Q
Source symbol Cglk	8 pF	Cglk 8 pF
Source symbol Cak	3 pF	Cak 3 pF
Source symbol Cgla	10 pF	Cgla 10 pF
Source symbol Uy,	69 V	Uy, 69V 57V I,% 130 mA
Source symbol V	57 V	Uy, 69V 57V I,% 130 mA
Published electrical parameter	130 mA	Uy, 69V 57V I,% 130 mA
Source symbol U,	250 V	U, 250 V U 300 V
Source symbol U	300 V	U, 250 V U 300 V
Published electrical parameter	500 V	U,!) 500V RgT 8 1 MQ

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Published electrical parameter	1 MΩ	U,!) 500V RgT 8 1 MΩ
Published electrical parameter	13 W	P,?) 13W
Source symbol RgT	<3 MΩ	JMOJIXKHA HpeBHIIAThH RgT<3 MΩ.
Resistance	<3 MΩ	the resistance value in the grid circuit should be RgT<3 MΩ.
Published electrical parameter	140 mA	140 max
Published electrical parameter	120 V	180YJ120v,) 30, 4 =
Published electrical parameter	50 V	200 \V _ 50V,
Source symbol V	2 A	V2 A1 A A /
Source symbol A	1 A	V2 A1 A A /
Published electrical parameter	63 V	U, =63V U, =63V



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1970 Russian Tubes Mashpriborintorg

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

1970 RUSSIAN TUBES MASHPRIBORINTORG

Section 1 · Triode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
U	63 V	Published datasheet line: U, 63V I,) 76 %36 mA
L	25+025 A	Published datasheet line: L, 25+025A S 55+1,6 mA/V
u	9 V	Published datasheet line: u, 9%V R 1) <460 Q
Ugr	−30 V	Published datasheet line: Ugr −30V R, 250 Q
Cg1k	8 pF	Published datasheet line: Cg1k 8 pF
Cak	3 pF	Published datasheet line: Cak 3 pF

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Cgla	10 pF	Published datasheet line: Cgla 10 pF
Uy	69 V	Published datasheet line: Uy, 69V 57V I,% 130 mA
U	250 V	Published datasheet line: U, 250 V U 300 V
U)	500 V	Published datasheet line: U,!) 500V RgT 8 1 MQ
P)	13 W	Published datasheet line: P,?) 13W
JMOJIXKHA HpeBHIIAThH RgT	3 MQ	Published datasheet line: JMOJIXKHA HpeBHIIAThH RgT<3 MQ.
the resistance value in the grid circuit should be RgT	3 MQ	Published datasheet line: the resistance value in the grid circuit should be RgT<3 MQ.

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Uy	69 V	Published datasheet line: Uy, 69V 57V I,% 130 mA
U	250 V	Published datasheet line: U, 250 V U 300 V
U)	500 V	Published datasheet line: U,!) 500V RgT 8 1 MQ
P)	13 W	Published datasheet line: P,?) 13W
JMOJIXKHA HpeBHIIAThH RgT	3 MQ	Published datasheet line: JMOJIXKHA HpeBHIIAThH RgT<3 MQ.
the resistance value in the grid circuit should be RgT	3 MQ	Published datasheet line: the resistance value in the grid circuit should be RgT<3 MQ.
PublishedValue	180 v	Published datasheet line: 180Y]120v,) 30, 4 =



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

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	6.3 V	Published nominal heater condition.
Heater current	2500 mA	Published heater current.
Plate current	80 mA	Published basic-parameter operating point.
Transconductance	5500 μ S	Published basic-parameter value; normalized to μ S.
Plate resistance	460 Ω	Published internal resistance.

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum plate voltage	250 V	Published limiting operating value.
Maximum cathode current	130 mA	Published limiting cathode-current value.
Maximum plate dissipation	13 W	Published per-triode plate dissipation.