



ELECTRONIC TUBE REFERENCE

6S33S

Power - Triode electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION
CONSTRUCTION
TRIODE

High-current Russian triode designed specifically as a series-pass tube in electronic voltage stabilizers for stationary and mobile equipment.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	7
NOMINAL HEATER	12.6 V / 3.3 A	PARALLEL HEATER	6.3 V / 6.6 A
HEATING	Indirect	SERIES OPERATION	Capable
CATHODE ARRANGEMENT	Common cathode	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION 1 Triode	
PLATE RESISTANCE	130 Ω
TRANSCONDUCTANCE	0.039 S
AMPLIFICATION FACTOR	3.5
MAXIMUM PLATE VOLTAGE	450 V
MAXIMUM PLATE DISSIPATION	60 W
MAXIMUM CATHODE CURRENT	600 mA
<i>Promoted-field completeness audit performed from English ratings/characteristics.</i>	

The 6C33C triode is designed for use as a 4yecTBe IPONyCKallell JaMOb B 3JeKTPOHHBIX CTa- band pass tube in electronic voltage stabilizers of O6uan3aTopax HaNpsiXKeHHs CTAallHOHApHOH H mmepe- stationary and movable equipment.



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

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	6.3 V	Published heater condition.
Heater current	6600 mA	Published heater current.
Transconductance	3000 μ S	Published characteristic; normalized to μ S.
Amplification factor	3.5	Published characteristic.
Service life	1000 h	Published service-life guarantee.

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum plate voltage	450 V	Published limiting/specification value.
Maximum plate dissipation	15 W	Published limiting value.



SOURCE OPERATING CONDITIONS

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1968 Electronintorg

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

1968 ELECTRONINTORG

Section 1 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
grid [1]	1	1, 2, 6, 7 — heater; 3 — cathode; 4 — anode; 5 — grid

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
grid [2]	2	1, 2, 6, 7 — heater; 3 — cathode; 4 — anode; 5 — grid
grid [3]	6	1, 2, 6, 7 — heater; 3 — cathode; 4 — anode; 5 — grid
grid [4]	7	1, 2, 6, 7 — heater; 3 — cathode; 4 — anode; 5 — grid
grid [5]	3	1, 2, 6, 7 — heater; 3 — cathode; 4 — anode; 5 — grid
grid [6]	4	1, 2, 6, 7 — heater; 3 — cathode; 4 — anode; 5 — grid
grid [7]	5	1, 2, 6, 7 — heater; 3 — cathode; 4 — anode; 5 — grid
temperature, °C [1]	343 C	CYCKOPEHMEM, MIC2 343 Ambient temperature, °C —10to +55
temperature, °C [2]	-10 C	CYCKOPEHMEM, MIC2 343 Ambient temperature, °C —10to +55
temperature, °C [3]	55 C	CYCKOPEHMEM, MIC2 343 Ambient temperature, °C —10to +55
current, yA,atmost [1]	28 A	nogorpesaTenel 2,8-3,6 Inverse grid current, yA,atmost 5
current, yA,atmost [2]	-36 A	nogorpesaTenel 2,8-3,6 Inverse grid current, yA,atmost 5
current, yA,atmost [3]	5 A	nogorpesaTenel 2,8-3,6 Inverse grid current, yA,atmost 5
Mutual conductance, mA/V [1]	56 mA/V	nogorpeBaTenem c.ouueuen.. 5,6-7,2 Mutual conductance, mA/V 28-50
Mutual conductance, mA/V [2]	-72 mA/V	nogorpeBaTenem c.ouueuen.. 5,6-7,2 Mutual conductance, mA/V 28-50
Mutual conductance, mA/V [3]	28 mA/V	nogorpeBaTenem c.ouueuen.. 5,6-7,2 Mutual conductance, mA/V 28-50
Mutual conductance, mA/V [4]	-50 mA/V	nogorpeBaTenem c.ouueuen.. 5,6-7,2 Mutual conductance, mA/V 28-50
resistance, Q,atmost [1]	120 ohm	Hanpsxenne aHoga, B 120 Internal resistance, Q,atmost 130
resistance, Q,atmost [2]	130 ohm	Hanpsxenne aHoga, B 120 Internal resistance, Q,atmost 130

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
heating time, s, atmost [1]	6 s	O6paTHbih TOK ceTku, MKA, He 6onee 5 Cathode heating time, s, atmost 120
heating time, s, atmost [2]	5 s	O6paTHbih TOK ceTku, MKA, He 6onee 5 Cathode heating time, s, atmost 120
heating time, s, atmost [3]	120 s	O6paTHbih TOK ceTku, MKA, He 6onee 5 Cathode heating time, s, atmost 120
Interelectrode capacitance, pF [1]	450 pF	TokaHoga, MA 450-630 Interelectrode capacitance, pF:
Interelectrode capacitance, pF [2]	-630 pF	TokaHoga, MA 450-630 Interelectrode capacitance, pF:
output [1]	6	BHyTpeHHee conpoTuenenue, Om, He 6onee 130 output ... 9.5-11.5
output [2]	130	BHyTpeHHee conpoTuenenue, Om, He 6onee 130 output ... 9.5-11.5
output [3]	9.5	BHyTpeHHee conpoTuenenue, Om, He 6onee 130 output ... 9.5-11.5
output [4]	-11.5	BHyTpeHHee conpoTuenenue, Om, He 6onee 130 output ... 9.5-11.5
heater capacitance,pF	70 pF	MexanekTpogHble eMKocTy, Nd: Cathode-heater capacitance,pF 70
cathode operation [1]	5.7	npuv napasnnensbHOM BKIoHeHUn common-cathode operation 5.7-6.9
cathode operation [2]	-6.9	npuv napasnnensbHOM BKIoHeHUn common-cathode operation 5.7-6.9
dissipation above [1]	57 W	e 5,7-6,9 at anode dissipation above 30W 250
dissipation above [2]	-69 W	e 5,7-6,9 at anode dissipation above 30W 250
dissipation above [3]	30 W	e 5,7-6,9 at anode dissipation above 30W 250
dissipation above [4]	250 W	e 5,7-6,9 at anode dissipation above 30W 250
dissipation at most3 [1]	0 W	Hanps>xenue aHoga, B: at anode dissipation at most30W 450
dissipation at most3 [2]	450 W	Hanps>xenue aHoga, B: at anode dissipation at most30W 450
current, mA [1]	6 mA	6onee30BT l 250 Anode current, mA:

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
current, mA [2]	0 mA	6onee30BT l 250 Anode current, mA:
current, mA [3]	250 mA	6onee30BT l 250 Anode current, mA:
cathode [1]	450	 450 in operation withone cathode 350
cathode [2]	350	 450 in operation withone cathode 350
cathode	45	Tok aHoAaa, MA: in operation withone cathode 45
heater, V [1]	600 V	npuv paboTe ¢ ABYMA KaTodaMM 600 Voltage between cathode and heater, V. 300
heater, V [2]	300 V	npuv paboTe ¢ ABYMA KaTodaMM 600 Voltage between cathode and heater, V. 300
grid circuit, MQ [1]	350 Mohm	npwv paboTe C OQHUM KATOAOAOM 350 Resistance ingrid circuit, MQ 0.2
grid circuit, MQ [2]	0.2 Mohm	npwv paboTe C OQHUM KATOAOAOM 350 Resistance ingrid circuit, MQ 0.2
Anode Characteristic Curves [1]	4	4 /// VIV) -] A\ _leraged Anode Characteristic Curves 4 // V 7] 1717 »fi“]
Anode Characteristic Curves [2]	4	4 /// VIV) -] A\ _leraged Anode Characteristic Curves 4 // V 7] 1717 »fi“]
Anode Characteristic Curves [3]	7	4 /// VIV) -] A\ _leraged Anode Characteristic Curves 4 // V 7] 1717 »fi“]
Anode Characteristic Curves [4]	1717	4 /// VIV) -] A\ _leraged Anode Characteristic Curves 4 // V 7] 1717 »fi“]
Grid Characteristic Curves [1]	160	c:::r:g'e:vl?node—Grid Characteristic Curves: 160 120 100 B0 60 40 -2 0
Grid Characteristic Curves [2]	120	c:::r:g'e:vl?node—Grid Characteristic Curves: 160 120 100 B0 60 40 -2 0
Grid Characteristic Curves [3]	100	c:::r:g'e:vl?node—Grid Characteristic Curves: 160 120 100 B0 60 40 -2 0
Grid Characteristic Curves [4]	60	c:::r:g'e:vl?node—Grid Characteristic Curves: 160 120 100 B0 60 40 -2 0
Grid Characteristic Curves [5]	40	c:::r:g'e:vl?node—Grid Characteristic Curves: 160 120 100 B0 60 40 -2 0
Grid Characteristic Curves [6]	-2	c:::r:g'e:vl?node—Grid Characteristic Curves: 160 120 100 B0 60 40 -2 0

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid Characteristic Curves [7]	0	c:::r:g'e:vl?node—Grid Characteristic Curves: 160 120 100 B0 60 40 -2 0


SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

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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

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate current - characteristic point	540 mA	—
Grid-to-plate capacitance	3.1 pF	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum plate voltage - short-time/cold-start condition	600 V	ColdTube
Maximum cathode-to-heater voltage	300 V	—


SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

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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
Plate current	-90 mA	Translated from Russian source; OCR line: Ток анода, мА . . , — 54090 550--=80 540=-90
Plate resistance	130 ohm	Translated from Russian source; OCR line: Внутреннее сопротивление, Ом --- < 130 80— 120 < 130

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Service life	2000 h	Translated from Russian source; OCR line: Нарботка, ч. — 1000 750 > 2000

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