

ELECTRONIC TUBE REFERENCE

6D20P

Rectifier - Damper Diode electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION
CONSTRUCTION
RECTIFIER

Russian high-voltage damping diode designed for television horizontal-deflection service.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	—
NOMINAL HEATER	6.3 V / 1.8 A	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION1 Rectifier	
MAXIMUM PLATE DISSIPATION	5 W
PEAK INVERSE VOLTAGE	6500 V
NOMINAL OUTPUT CURRENT	220 mA
PEAK FORWARD CURRENT	600 mA
Representative section row from the complete filename-matched Russian datasheet content only; neighboring-tube fragments excluded.	

High-voltage damping diode for television horizontal-deflection service.

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 · Rectifier

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Published electrical data	6.3; 6.3	B- N 6,3 heater 6.3
Published electrical data	-8; 30; 30	-8(o - P 30 anOde ... e 30
Heater voltage	1073 V	U - A 1,8+0,15 a"oOa NpH HanpskeHRH Hakana 5,7B =250-10"3 heater t s 1.8+0.15 aHOJA B UMIYJibCE NPH HANpsSXKEHHM Hakana 5,7 B anode, at heater voltage 5.7V =250%1073
Heater voltage	5.7 V	a"oOa NpH HanpskeHRH Hakana 5,7B =250-10"3 heater t s 1.8+0.15 aHOJA B UMIYJibCE NPH HANpsSXKEHHM Hakana 5,7 B anode, at heater voltage 5.7V =250%1073 (npu HanpsXXeHHH aHoaa B uMmnyibce 50 B, yacrore
Heater voltage	16 V	aHOJA B UMIYJibCE NPH HANpsSXKEHHM Hakana 5,7 B anode, at heater voltage 5.7V =250%1073 (npu HanpsXXeHHH aHoaa B uMmnyibce 50 B, yacrore anode (pulse), at heater voltage 5.7 V, anode pulse nocetox 16 k[¥ OIHTENBHOTH UMMY

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	1073 V	(npu HanpsXXeHHH aHoaa B uMmnyibce 50 B, yacrore anode (pulse), at heater voltage 5.7 V, anode pulse nocetox 16 k[¥ OIHTENBHOTH UMMYJIBCA voltage 50 V, pulse frequency 16 kHz and pulse L2 MKC) ottt e i e e =600 1073 duration 12 48 ovi
Published electrical data	=600; 1073; 12; 48; =600; 1073	L2 MKC) ottt e i e e =600 1073 duration 12 48 oviiii i =600 1073
Published electrical data	8.0; 1.0	OULPUL oLttt it ie e iaarenecnaeannns 8.0f1.0
Published electrical data	=32	KaTOR —MOOOTPEBATEAD . .ot ivinininennsn. =32
Published electrical data	=32	cathode-to-heater cc.ccciiiniinn. =32
Warm-up time	=60 s	cathode-to-heater cc.ccciiiniinn. =32 Bpemst pazorpeBa kaToma, C , =60 Cathode warm-up period, s C..ooiuvnn.. =60
Warm-up time	4 s	Bpemst pazorpeBa kaToma, C , =60 Cathode warm-up period, s c..ooiuvnn.. =60 DJleKTPYYecKHe napaMeTpebi B TedeHue 5000 4 rkany-
Warm-up time	5000 s	Cathode warm-up period, s C..ooiuvnn.. =60 DJleKTPYYecKHe napaMeTpebi B TedeHue 5000 4 rkany-ATAUHUHM: Electrical parameters over 5000 operating hours:
Plate current	=100 mA	DJleKTPYYecKHe napaMeTpebi B TedeHue 5000 4 rkany-ATAUHUHM: Electrical parameters over 5000 operating hours: TOK aHOOA NpH Hemokasne, MA =100 anode current at heater undervoltage, mA =100

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate current	=100 mA	ATAUHUHM: Electrical parameters over 5000 operating hours: TOK aHOOA NpH Hemokasne, MA =100 anode current at heater undervoltage, mA =100
Plate current	=100 mA	TOK aHOOA NpH Hemokasne, MA =100 anode current at heater undervoltage, mA =100 JNICXTpHMECKAA IPDOYHOCTD: electrical strength:
Rectified current	10 mA	8, KB Lot i e e s A TOK 2HOIA B UMITYT BCE, MA. v vovvsno .. 230450 anode peak current, mA 230+ 50 BROPAM/ICHHBIH TOX (Cpemmee 3HaueHme) MA 90+10 rectified current (average value), mA 90+10
Rectified current	1614 mA	TOK 2HOIA B UMITYT BCE, MA. v vovvsno .. 230450 anode peak current, mA 230+ 50 BROPAM/ICHHBIH TOX (Cpemmee 3HaueHme) MA 90+10 rectified current (average value), mA 90+10 9aCTOTa CTPOYHOM pa3BepTKy, K
Rectified current	1614 mA	BROPAM/ICHHBIH TOX (Cpemmee 3HaueHme) MA 90+10 rectified current (average value), mA 90+10 9aCTOTa CTPOYHOM pa3BepTKy, K 16+4 line scanning frequency, kHz 1614
Line scanning frequency	3 kHz	9aCTOTa CTPOYHOM pa3BepTKy, K 16+4 line scanning frequency, kHz 1614 ITpenesbHble 3HA4eHHS] NONYCTHMBIX Limit Values of Operating

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater-cathode voltage	0.5 V	JNICXTPHMECKAA IPDOYHOCTD: electrical strength: 06paTHOE HANPAKEHAE B HMIIYJILCE, KB 7,5+0,5 reverse pulse voltage, kV 7.5+0.5 nan;;xeme KaTOA—NOA0TpeBATENb B HMITY/Ih- 75405 cathode-to-heater pulse voltage, kV ..
Heater-cathode voltage	8 V	06paTHOE HANPAKEHAE B HMIIYJILCE, KB 7,5+0,5 reverse pulse voltage, kV 7.5+0.5 nan;;xeme KaTOA—NOA0TpeBATENb B HMITY/Ih- 75405 cathode-to-heater pulse voltage, kV 7.5+0.5 8, KB Lot i e e s A
Heater-cathode voltage	50 V	nan;;xeme KaTOA—NOA0TpeBATENb B HMITY/Ih- 75405 cathode-to-heater pulse voltage, kV 7.5+0.5 8, KB Lot i e e s A TOK 2HOIA B UMITYTBCE, MA. v vovvsno .. 230450 anode peak current, mA 230+ 50
Published electrical data	3	ITpenesbHble 3HA4eHHS] NONYCTHMBIX Limit Values of Operating
Heater voltage	57 V	MaxcamyMm MuuamyM Maximum Minimum Hanpaxenme Hakana, B 6,9 5,7 Heater voltage, V 6.9 57
Heater voltage	3 V	Hanpaxenme Hakana, B 6,9 5,7 Heater voltage, V 6.9 57 BrmpsaminerHEbIR TOK (CpeaHee 3Ha%- .
Heater voltage	220 V	Hanpaxenme Hakana, B 6,9 5,7 Heater voltage, V 6.9 57 BrmpsaminerHEbIR TOK (CpeaHee 3Ha%- . HAC), MA oonvnnnnnnnnnnnnns 220 Rectified current (average value), mA 220
Rectified current	600 mA	BrmpsaminerHEbIR TOK (CpeaHee 3Ha%- . HAC), MA oonvnnnnnnnnnnnnns 220 Rectified current (average value), mA 220 Tox aHoAa B EMIYIILCE, MA 600 Anode pulse current, mA 600
Rectified current	600 mA	HAC), MA oonvnnnnnnnnnnnnns 220 Rectified current (average value), mA 220 Tox aHoAa B EMIYIILCE, MA 600 Anode pulse current, mA 600 OOpATHOE HaNpPAXEHHE MEXAY aHO-
Published electrical data	22; 22	NPOAO/IKATENLHOCTH AMITYIBCA 22% cathode (pulse), at pulse duration 22%
Published electrical data	15; 6.5; 5; 6.5	nepHEoda, HO He Gonee 15 Mxc), xB 6,5 of pulse period, but not over {5 us, kV 6.5

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Published electrical data	3	AbcomOTHOE 3HaUCHHE HANPKCHHA Absolute voltage between cathode and
Published electrical data	22	MeXIy xa'ro(nom H [ONOrpeBaTeyieM heater (pulse), at pulse duration 22%
Published electrical data	15; ~7	B EMIIy/bCe (TPH TPOAOIKHTETBHOC- of pulse period, but not over 15us, kV ~7
Published electrical data	22	TH EMOYIBCa 22% MEepROOa, HO He
Published electrical data	15; -7	Gonee 15 Mrc), kB -7 Absolute voltage between cathode and
Published electrical data	3; -1750	AOGCOMOTHOE 3HAUCHHE HANPSDKEHAS heater (D.C.), V —1750
Published electrical data	-1750; 160	(mocrstEHOE), B, —1750 Voltage between cathode and heater 160
Published electrical data	110	Hanpskenne Mexly KaTonoM i 110- (D) VY i
Plate dissipation	5 W	Hanpskenne Mexly KaTonoM i 110- (D) VY i norpepatenim (mocTosHHoe), B ... 100 Power dissipation at anode, W 5
Plate dissipation	5 W	norpepatenim (mocTosHHoe), B ... 100 Power dissipation at anode, W 5 MomHocTs, paccewsaeMas aHO-
Plate dissipation	12 W	norpepatenim (mocTosHHoe), B ... 100 Power dissipation at anode, W 5 MomHocTs, paccewsaeMas aHO- JoM, BT ...l 5 Line scanning frequency, kHz - 12
Line scanning frequency	12 kHz	MomHocTs, paccewsaeMas aHO- JoM, BT ...l 5 Line scanning frequency, kHz - 12 YacTToTa CTpOYHOM pa3BepTkH, K[— 12
Line scanning frequency	210 kHz	JoM, BT ...l 5 Line scanning frequency, kHz - 12 YacTToTa CTpOYHOM pa3BepTkH, K[— 12 TemmepaTypa 6annona, °C 210 Bulb temperature, °C 210
Bulb temperature	210 C	YacTToTa CTpOYHOM pa3BepTkH, K[— 12 TemmepaTypa 6annona, °C 210 Bulb temperature, °C 210
Bulb temperature	210 C	TemmepaTypa 6annona, °C 210 Bulb temperature, °C 210
Published electrical data	400; 7	IUI v 400 7
Published electrical data	3001	T AREREN 3001 i/

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

Section 1 · Rectifier

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage nominal	6.3 V	Published heater operating voltage
Heater current nominal	1.8 A	Nominal or midpoint of published heater-current tolerance
Plate current at 57 V	250 mA	Published
Service life	2000 h	Minimum

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Rectified current limit	220 mA	Average
Peak plate current	600 mA	Published
Plate dissipation	5 W	Published
Peak inverse voltage	6500 V	Pulse

TUBE TINKER

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