



ELECTRONIC TUBE REFERENCE

GU78B

Power - Tetrode (NOT beam) (over 1000V 100W) electronic tube

CONSOLIDATED TECHNICAL
DATA

1 SECTION
CONSTRUCTION
TETRODE

Transmitting power tetrode designed for RF amplification, linear/SSB service, oscillation, modulation, broadcasting, or frequency multiplication.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	—
NOMINAL HEATER	27 V / —	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION1 Tetrode	
MAXIMUM PLATE VOLTAGE	6200 V
MAXIMUM SCREEN VOLTAGE	350 V
MAXIMUM PLATE DISSIPATION	2500 W
MAXIMUM SCREEN DISSIPATION	30 W
MAXIMUM GRID DISSIPATION	1 W
MAXIMUM CATHODE CURRENT	2.2 A
<i>Promoted-field audit performed from English ratings/characteristics; detailed electrical values retained in parameter table. REDO promoted-field audit completed from English Limit Operating Values / Electrical Parameters tables.</i>	

The GU-78B tetrode is used for power amplification in distributed and single-sideband amplifiers at frequencies up to 250 MHz in RF industrial engineering. It is forced-air-cooled metal-ceramic construction.

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1968 Electronintorg

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

1968 ELECTRONINTORG

Section 1 · Tetrode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
power amplification in di [1]	786 W	eHepaTopHbin TeTpoa [Y-786 npeaHasHaeH gng The I'Y-78b tetrode is used for power amplification in di-
power amplification in di [2]	78 W	eHepaTopHbin TeTpoa [Y-786 npeaHasHaeH gng The I'Y-78b tetrode is used for power amplification in di-
Cathode: indirectly heated, oxide-coated	21521	Cathode: indirectly heated, oxide-coated. 21521
grid [1]	2	thode, grid 2 and anode and pin leads of grid 1. Bropas; K — katoa;
grid [2]	1	thode, grid 2 and anode and pin leads of grid 1. Bropas; K — katoa;
anode	1	C1-grid 1; A —anode;
cathode	2	C2 - grid 2; K — cathode;
heater; / - contact sur [1]	1.8	Mass: at most 1.8 kg. 52724 11— heater; / - contact sur-
heater; / - contact sur [2]	52724	Mass: at most 1.8 kg. 52724 11— heater; / - contact sur-
heater; / - contact sur [3]	11	Mass: at most 1.8 kg. 52724 11— heater; / - contact sur-
temperature, °C [1]	150 C	YCKOPEHUEM, M/C% 150 Ambient temperature, °C —60to +70
temperature, °C [2]	-60 C	YCKOPEHUEM, M/C% 150 Ambient temperature, °C —60to +70
temperature, °C [3]	70 C	YCKOPEHUEM, M/C% 150 Ambient temperature, °C —60to +70

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
voltage (ACorDC),V [1]	27 V	 27 Heater voltage (ACorDC),V 27
voltage (ACorDC),V [2]	27 V	 27 Heater voltage (ACorDC),V 27
voltage, V [1]	300 V	CEeTKM BTOPOM 300 Negative grid 1 bias voltage, V
voltage, V [2]	1 V	CEeTKM BTOPOM 300 Negative grid 1 bias voltage, V
voltage [1]	51 V	CMEWEHUA CETKU NEPBOW ot MUHYC 51-25 Negative cutoff voltage (at anode voltage
voltage [2]	-25 V	CMEWEHUA CETKU NEPBOW ot MUHYC 51-25 Negative cutoff voltage (at anode voltage
current [1]	3 mA	3anMpanns (Npuy HaNPSHKEHNAX 3 kV, anode current 20 mA),
current [2]	3 mA	3anMpanns (Npuy HaNPSHKEHNAX 3 kV, anode current 20 mA),
current [3]	20 mA	3anMpanns (Npuy HaNPSHKEHNAX 3 kV, anode current 20 mA),
voltage	1 mA	Tok, mA: Anode current at zero grid 1 voltage
voltage [1]	15 V	AHOOA . o oot 1,5-10° (at anode voltage 250 V), mA,atmost 4.2
voltage [2]	-10 V	AHOOA . o oot 1,5-10° (at anode voltage 250 V), mA,atmost 4.2
voltage [3]	250 V	AHOOA . o oot 1,5-10° (at anode voltage 250 V), mA,atmost 4.2
voltage [4]	4.2 V	AHOOA . o oot 1,5-10° (at anode voltage 250 V), mA,atmost 4.2
voltage [1]	2 uA	aHoaa Hynesow (MPU HANPSKEHUAX Grid 2 current at zero grid 1 voltage
voltage [2]	1 uA	aHoaa Hynesow (MPU HANPSKEHUAX Grid 2 current at zero grid 1 voltage
voltage [1]	250 V	aHoga 250 B, ceTku nepsou 0 B), (at anode voltage 250 V), mA,atmost 0.9
voltage [2]	0 V	aHoga 250 B, ceTku nepsou 0 B), (at anode voltage 250 V), mA,atmost 0.9
voltage [3]	250 V	aHoga 250 B, ceTku nepsou 0 B), (at anode voltage 250 V), mA,atmost 0.9

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
voltage [4]	0.9 V	aHoga 250 B, ceTku nepsou 0 B), (at anode voltage 250 V), mA,atmost 0.9
Mutual conductance, mA/V	42 mA/V	HEMEHEE . . . oot 4,2 Mutual conductance, mA/V
voltage [1]	9 V	HEOOMBE .. .ottt e e 0,9 at heater voltage 27 V, atleast 25
voltage [2]	27 V	HEOOMBE .. .ottt e e 0,9 at heater voltage 27 V, atleast 25
voltage [3]	25 V	HEOOMBE .. .ottt e e 0,9 at heater voltage 27 V, atleast 25
voltage [1]	40 V	KpyTusHa xapaktepucTuku, MA/B 40-80 at heater voltage 25.7 V, atleast 2.2
voltage [2]	-80 V	KpyTusHa xapaktepucTuku, MA/B 40-80 at heater voltage 25.7 V, atleast 2.2
voltage [3]	25.7 V	KpyTusHa xapaktepucTuku, MA/B 40-80 at heater voltage 25.7 V, atleast 2.2
voltage [4]	2.2 V	KpyTusHa xapaktepucTuku, MA/B 40-80 at heater voltage 25.7 V, atleast 2.2
input [1]	100	knacca AB;, kBT, He meuee: input ... 100-150
input [2]	-150	knacca AB;, kBT, He meuee: input ... 100-150
output [1]	25	 2,5 output 15-30
output [2]	15	 2,5 output 15-30
output [3]	-30	 2,5 output 15-30
voltage (ACorDC),V [1]	257 V	Hanpsbkenve Hakana, (~mnn=),B 25,7-28,3 Heater voltage (ACorDC),V
voltage (ACorDC),V [2]	-283 V	Hanpsbkenve Hakana, (~mnn=),B 25,7-28,3 Heater voltage (ACorDC),V
voltage (DC), V [1]	350 V	. .. 350 Grid 2voltage (DC), V. 350
voltage (DC), V [2]	2 V	. .. 350 Grid 2voltage (DC), V. 350
voltage (DC), V [3]	350 V	. .. 350 Grid 2voltage (DC), V. 350

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
voltage (DC, absolute	1 V	OTpuyarenbHOe HaNpPsiXXeHne CeTKn Nepeom Negative grid 1 voltage (DC, absolute
current (DC component), mA	2200 mA	Tok kaTtoga (NocTosHHan cocTasnsaowan), mA 2200 Cathode current (DC component), mA
current (DC component), mA	1 mA	Tok nepeoit ceTku (MOCTOAHHA Grid 1 current (DC component), mA
Dissipation, W	25 W	cocTasnslowas), MA 25 Dissipation, W: