

ELECTRONIC TUBE REFERENCE

GI12B

Voltage - Triode (single) electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION
CONSTRUCTION
TRIODE

Russian metal-ceramic RF triode for oscillator and amplifier service in continuous-wave or pulsed operation with anode modulation.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	—
NOMINAL HEATER	12.6 V / —	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION1 Triode	
MAXIMUM PLATE VOLTAGE	2000 V
Promoted-field completeness audit performed from English ratings/characteristics.	

The GI-12B triode is used as an RF oscillator and amplifier in continuous-wave or pulsed operation with anode modulation; it uses metal-ceramic construction and forced-air cooling.

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 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
mnynbCHbiA reHepaTtopHein Tpuoa MN [1]	126	mnynbCHbiA reHepaTtopHein Tpuoa MN-126 npea- The TMN-12b triode is used as a RF oscillator and an
mnynbCHbiA reHepaTtopHein Tpuoa MN [2]	12	mnynbCHbiA reHepaTtopHein Tpuoa MN-126 npea- The TMN-12b triode is used as a RF oscillator and an
temperature, °C - [1]	343 C	M 343 Ambient temperature, °C —60to +100
temperature, °C - [2]	-60 C	M 343 Ambient temperature, °C —60to +100
temperature, °C - [3]	100 C	M 343 Ambient temperature, °C —60to +100
voltage	400 uS	KpyTu3Ha xapakTepucTuky (Npy Hanps>keHun Mutual conductance (at anode voltage 400 V,
anode [1]	400 V	aHopa 400 B, nameHeHUn HANPSXXEHNS CETKM grid voltage change +0.5V, anode
anode [2]	0.5 V	aHopa 400 B, nameHeHUn HANPSXXEHNS CETKM grid voltage change +0.5V, anode
current [1]	5 mA	Ha £0,5 B, Toke aHoaa 15 MA), current 15mA), mA/V 8-12
current [2]	15 mA	Ha £0,5 B, Toke aHoaa 15 MA), current 15mA), mA/V 8-12
current [3]	15 mA	Ha £0,5 B, Toke aHoaa 15 MA), current 15mA), mA/V 8-12
current [4]	8 mA	Ha £0,5 B, Toke aHoaa 15 MA), current 15mA), mA/V 8-12
current [5]	-12 mA	Ha £0,5 B, Toke aHoaa 15 MA), current 15mA), mA/V 8-12

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
voltage [1]	8 V	MA/B .. 8-12 Penetration factor (at anode voltage 400 V,
voltage [2]	-12 V	MA/B .. 8-12 Penetration factor (at anode voltage 400 V,
voltage [3]	400 V	MA/B .. 8-12 Penetration factor (at anode voltage 400 V,
current [1]	400 A	MpoHuyaemocTs (Npy HanpsXxeHuy aHoaa 400 B, anode voltage change 400 V, anode current
current [2]	400 A	MpoHuyaemocTs (Npy HanpsXxeHuy aHoaa 400 B, anode voltage change 400 V, anode current
grid voitage at [1]	15	aHoga 15mMA), % ... 0,7-15 Operating point (negative grid voitage at
grid voitage at [2]	7	aHoga 15mMA), % ... 0,7-15 Operating point (negative grid voitage at
grid voitage at [3]	-15	aHoga 15mMA), % ... 0,7-15 Operating point (negative grid voitage at
current [1]	400 mA	Paboyan Touka (oTpuLaTensHOe HanpshkeHue anode voltage 400 V, anode current 15mA), V 4.5-1
current [2]	15 mA	Paboyan Touka (oTpuLaTensHOe HanpshkeHue anode voltage 400 V, anode current 15mA), V 4.5-1
current [3]	4.5 mA	Paboyan Touka (oTpuLaTensHOe HanpshkeHue anode voltage 400 V, anode current 15mA), V 4.5-1
current [4]	-1 mA	Paboyan Touka (oTpuLaTensHOe HanpshkeHue anode voltage 400 V, anode current 15mA), V 4.5-1
interelectrode capacitance, pF	400 pF	CeTKU Npu HanpshkeHun anoga 400 B, Toke interelectrode capacitance, pF:
input [1]	15	anopa 15mMA), B 4,51 input ... 9-13
input [2]	451	anopa 15mMA), B 4,51 input ... 9-13
input [3]	9	anopa 15mMA), B 4,51 input ... 9-13
input [4]	-13	anopa 15mMA), B 4,51 input ... 9-13
output	0.04	MexxanekTpogHblie emkocTy, Nd: output 0.04
voltage	4 W	BBIXOAHAS . . oo vttt 0,04 Output power in CW operation (at anode voltage

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
wavelength at most [1]	2 cm	MPOXOAHAM .« o v v et e et ennenea s 2-3,3 800 V, peak anode current 100 A, wavelength at most
wavelength at most [2]	-33 cm	MPOXOAHAM .« o v v et e et ennenea s 2-3,3 800 V, peak anode current 100 A, wavelength at most
wavelength at most [3]	800 cm	MPOXOAHAM .« o v v et e et ennenea s 2-3,3 800 V, peak anode current 100 A, wavelength at most
wavelength at most [4]	100 cm	MPOXOAHAM .« o v v et e et ennenea s 2-3,3 800 V, peak anode current 100 A, wavelength at most
power over [1]	500 W	B HENpepbIBHOM pexxume (rpu Output power over 500 h of service, W 2.4
power over [2]	2.4 W	B HENpepbIBHOM pexxume (rpu Output power over 500 h of service, W 2.4
pulse duration about5 us)	2 us	B MMMy NbCE (Npy ANUTENbHOCTH peak value (with pulse duration about5 us) 2
pulse duration [1]	2 V	UMNYNBCAOKONMOSMKC) .. .o 2 Peak grid voltage (with pulse duration 5u), V — 150to0 +50
pulse duration [2]	5 V	UMNYNBCAOKONMOSMKC) .. .o 2 Peak grid voltage (with pulse duration 5u), V — 150to0 +50
pulse duration [3]	-150 V	UMNYNBCAOKONMOSMKC) .. .o 2 Peak grid voltage (with pulse duration 5u), V — 150to0 +50
pulse duration [4]	50 V	UMNYNBCAOKONMOSMKC) .. .o 2 Peak grid voltage (with pulse duration 5u), V — 150to0 +50
anode	15	OKOMOSMKC) . .iiiiit itt 1,5 anode:
grid	2	NPy OTCYTCTBUAN NPUHYAUTENBHOTO grid ... 2
Wavelength,cm, atleast [1]	20 cm	OXNIAKACHMS . . . oo ittt eea e 20 Wavelength,cm, atleast 9
Wavelength,cm, atleast [2]	9 cm	OXNIAKACHMS . . . oo ittt eea e 20 Wavelength,cm, atleast 9
Temperature, °C	2 C	PaccenBaemas MOWHOCTb CETKOW, BT 2 Temperature, °C:
grid circuit, kQ [1]	100 kohm	BbIBOAA KATOAA v v vvvvvvrnncnneananannnns 100 Resistance in grid circuit, kQ 10

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
grid circuit, k Ω [2]	10 kohm	BbIBOAA KATOAA v v vvvvvvrnncnnenenanannnnns 100 Resistance in grid circuit, k Ω 10
frequency V [1]	126 Hz	\) , ‘\) Up = 12,6 V; Timp = 4 us; frequency V
frequency V [2]	4 Hz	\) , ‘\) Up = 12,6 V; Timp = 4 us; frequency V
anode	8	8 t anode;
Power versus /]	7 W	ol T LI fk 7 ing Oscillator Output Power versus /]
Grid Characteristic) l-/lfi _ -/:_ [1]	7 W	::rerreangtel: g:lnsr:%;relil:i:o('::rves of Oscillator Quiput Power versus Anode éflfl:ged Anode-Grid Characteristic) l-/lfi _ -/:_ 7;;0----2 = _'4 .
Grid Characteristic) l-/lfi _ -/:_ [2]	0 W	::rerreangtel: g:lnsr:%;relil:i:o('::rves of Oscillator Quiput Power versus Anode éflfl:ged Anode-Grid Characteristic) l-/lfi _ -/:_ 7;;0----2 = _'4 .
Grid Characteristic) l-/lfi _ -/:_ [3]	-2 W	::rerreangtel: g:lnsr:%;relil:i:o('::rves of Oscillator Quiput Power versus Anode éflfl:ged Anode-Grid Characteristic) l-/lfi _ -/:_ 7;;0----2 = _'4 .
Grid Characteristic) l-/lfi _ -/:_ [4]	4 W	::rerreangtel: g:lnsr:%;relil:i:o('::rves of Oscillator Quiput Power versus Anode éflfl:ged Anode-Grid Characteristic) l-/lfi _ -/:_ 7;;0----2 = _'4 .
U;= [1]	12.6	U;=12.6 V; A = 9 cm; duty factor & 0.005
U;= [2]	9	U;=12.6 V; A = 9 cm; duty factor & 0.005
U;= [3]	0.005	U;=12.6 V; A = 9 cm; duty factor & 0.005