Pentode of high reliability and high frequency. Short characteristic

Designed for use in battery-efficient circuits as an amplifier, mixer and oscillator signals to 60 MHz.

Directly heated oxide cathode. It works in any position. Available in a miniature glass design. The service life is at least 2000 hours.

Base pin wire. 7 Terminals. Terminal length not less than 35 mm. 0.4 mm diameter pins. O anode length at least 25 mm.

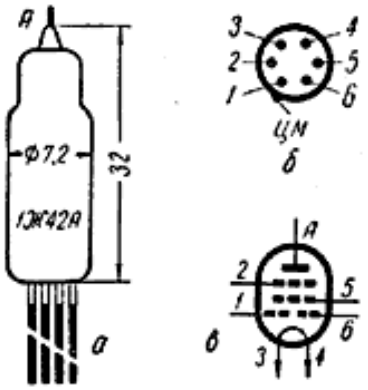
Fig. 53. Lamp 1Zh42a A - the main dimensions; b – Electrodes and pin numbers "- A schematic representation; 1 - first control grid (left); 2 - third grid; 3 - the filament (plus); 4 – Filament (minus) and the cathode; 5 - second grid; 6 - first control grid (right); A - upper output on the envelope - the anode.

Inter-electrode capacitance, pF (with external shield)

Input.....no more than 10

Output.....no more than 3.5

Feedback .....no more than 0,025



Nominal power operation

Heater voltage, V 1.2

Voltage at the anode, V..... 6

The voltage on the second grid, V 6

Bias voltage each first grid, V..... 0

Filament current, mA 15

Anode current, mA..... 0.55

The current in the circuit of the second grid, mA 0.25

Slope for the first control grids wired together, mA/V 0.46

Slope of the first grid with filament connected at a voltage 0.95 V, mA/V..... not less than 0.28

The slope of the first grid (each half) mA/V..... not less than 0.16

The steepness of the transformation of each grid mA/V..... not less than 0.04

Internal resistance kOhm.....100

Input impedance at the frequency of 60MHz,kOhm.....60

Equivalent noise resistance at a frequency of 30 MHz, kOhm.....no more than 25

Vibration-induced noise for anode load of 10 kOhm at 50 Hz frequency and with 10 g acceleration, mV eff.....no more than 10

Maximum permissible electrical values

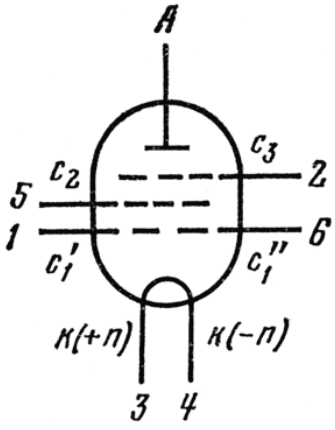
The maximum filament voltage, V.....1.32

The lowest filament voltage, V.....0.9

The maximum voltage on the anode, V.....20

The highest voltage on the second grid, V.....12

The greatest current in the cathode circuit, mA.....1.3



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1Ж42А

1j42a Pentodes. Directly heated (with two common control- 2 grids) for amplification and oscillation and frequency conversion. Devices for economical power.

Design - in a glass envelope, sub-miniature (Fig. 22B)

Basic parameters for Uf= 1.2 V, Ua=6V, Ug2 = 6V, Ug1 = 0V

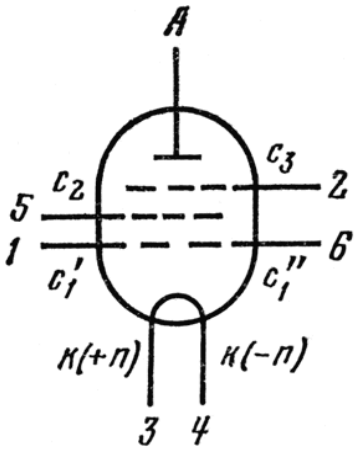
Heating current.....(15 ± 1,5) mA
The current anode.....0.55+0.35,-0.25 mA
Current 2nd grid .....<0.25 mA
Slope:
grid (grid 1' and 1" are connected in parallel) .....0,45_0.12 mA/V
grid 1'.....> 0.16 mA / V
grid 1".....> 0.16 mA / V
at Uf=0.95.....> 0.25 mA / V

The steepness of the transformation:

grid 1'.....> 36 uA / V
grid 1".....> 36 uA / V
Input resistance (= 60 MHz) .....> 60kΩ
The equivalent noise resistance (at f= 30 MHz).....< 90 KΩ
Voltage vibronoise (with Ra= 10kΩ).....< 10mV

Electrode capacity:

input.....10pF
Output.....3.5 pF
Anode to grid1.....< 0.035 pF
Hours.....> 2000 hours



Criteria for evaluation:

slope (grid 1' and 1" are joined together).....> 0.28 mA/V

Heater voltage.....0,95-1,32V
Voltage anode.....20V
2nd grid voltage.....12V
Current cathode.....1.3 mA
Cylinder temperature.....125 ° C

Resilience:

acceleration of vibration in the frequency range10-2500Hz. 10g
acceleration of multiple bumps 150g
acceleration of single beats.....500g
acceleration constant.....100g
operating temperature range.....-60oC to 125oC

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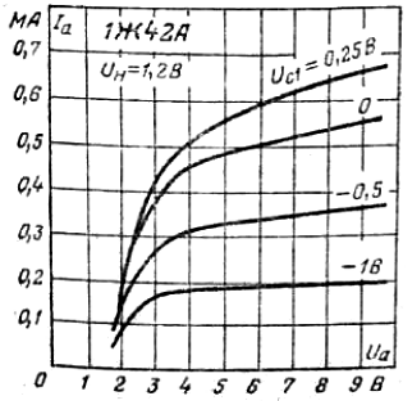
Anode characteristics.



Anode-grid characteristics.