



MADE IN RUSSIA
ELECTRON VALVE 7025/12AX7WA, 7025/12AX7WB

1. GENERAL

Type 7025/12AX7WA, 7025/12AX7WB miniature double triode with separate indirectly heated cathodes is intended for being employed as phase inverter or as double amplifier with resistive feedback.

Mass no more than 15 g.

Lead diagram Electrode-to-lead connection diagram

Lead designation	Function of electrode
1	First triode plate
2	First triode grid
3	First triode cathode
4, 5 and 9	Filament
6	Second triode plate
7	Second triode grid
8	Second triode cathode

2. OPERATING CONDITIONS

Sinusoidal vibrations:	
frequency range, Hz	1 – 200
acceleration amplitude, m/S ²	50
Mechanical impact:	
multiple-action impact peak impact acceleration, m/S ²	150
Elevated ambient temperature, °K:	
working temperature	343
limiting temperature	383
Lowered ambient temperature, °K:	
working temperature	228
limiting temperature	213
Temperature range, °K:	
from elevated ambient working temperature	343
to lowered ambient limiting temperature	213
Elevated relative humidity, %:	
at 308°K for climatic condition all-climatic	98
at 298°K for climatic condition temperature-cold	98
Lowered atmospheric pressure, kPa:	
working pressure	70
limiting pressure	19.4

Mould fungi (for climatic condition all-climatic)

3. SPECIFICATIONS 3.1. Electrical parameters at $(298 \pm 5)^\circ\text{K}$

Parameters, conditions and units	Norm					
	7025/12AX7WA			7025/12AX7WB		
	min	Nominal	max	min	Nominal	max
Grid back current, mA (at: filament voltage 6,3 V, anode voltage 250 V, grid voltage minus 1,5 V, resistance in grid circuit, 1,0 M Ω)	-	-	0.2	-	-	0.2
Slope of characteristic, mA/V (at: filament voltage 6,3 V, anode voltage 250 V, grid voltage minus 1,5 V)	1.6	2.1	2.65	1.4	1.9	2.45
Plate current, mA (at: filament voltage 6,3 V, anode voltage 250 V, grid voltage minus 1,5 V)	1.4	-	-	1.2	-	-
Filament current, mA (at: filament voltage 6,3 V)	305	340	375	305	340	375
Plate current at the beginning of the characteristic, mA (at: filament voltage 6,3 V, anode voltage 250 V, grid voltage minus 5,5 V)	-	-	10	-	-	10
Cathode-filament leakage current, mA (at: filament voltage 6,3 V, cathode-filament voltage ± 250 V)	-	-	15	-	-	15
Input capacitance, pF	1.8	2.15	2.5	1.8	2.15	2.5
Transfer capacitance, pF	-	0.55	0.8	-	0.55	0.8
Output capacitance, pF	1.3	1.9	2.5	1.3	1.9	2.5
First triode plate-second triode plate capacitance, pF	-	-	0.4	-	-	0.4
Amplification factor (at: filament voltage 6,3 V, anode voltage 250 V, grid voltage minus 1,5 V)	85	91	97	95	102	110
Noise voltage in a range 20 Hz—10 kHz, mV (at: filament voltage 6,3 V, anode voltage 250 V, grid circuit resistance 0 M Ω , anode circuit resistance 100 k Ω , cathode circuit resistance 2700 Ω)	-	-	300	-	-	300

3.2. Maximum permissible operating conditions

Parameters, units	Norm	
	min	max
Filament voltage, V:		
for parallel connection	6.0	6.6
for series connection	12.0	13.2
Plate voltage, V		300
Cathode-filament voltage, V		± 100
Cathode current, mA		10
Power dissipation at the plate of each triode, W	—	1.0
Grid circuit resistance for each of the triodes, M Ω	—	1.0
Temperature at the most heated part of the envelope, $^\circ\text{K}$	—	368

4. OPERATING INSTRUCTIONS

Make sure that more than one of the above maximum permissible operating conditions are in no way attained simultaneously while the electron valve is in service.

5. STORAGE The electron valve must be kept in the manufacturer's cartons in heated or air conditioned stores within the temperature range from 278 to 313 °K and relative humidity 80% at 298 °K.

Valves in tropical design in manufacturer's package should allow transport and storage at relative humidity 98% and temperature 308 °K.