6Ж38П-ЕВ

Miniature pentode with short characteristics having heated cathode in glass envelope (according to specs 3 300 053 TY)

Electrical data	Values			
	Operating Conditions I			*Operating Conditions* II
	min	nom	max	nom
Heater voltage, V	6	6.3	6.6	6.3
Plate voltage, V		150		120
The second grid voltage, V		100		120
Transconductance, mA|V	7.6	10.6	13.6	9
The first grid reverse current, μA			0.3	
The second grid current, mA		1.8	3.5	1.3
Heater current, mA	170	190	210	190
Plate current, mA	8.5	12	15.5	8.5
Plate current at transconductance origin, μA			30	
Cathode-heater insulation resistance, MΩ	12			
Transconductance at low *nominal voltage*, mA|V	6.5			
Input capacitance, pF	4.1	5.2	6.3	5.2
Output capacitance, pF	2.4	3.3	4.2	3.3
Transfer capacitance, pF		0.015	0.02	0.02 (max value)
Resistance in cathode circuit, Ω		82		200
Internal resistance, kΩ		280		320
Noise equivalent resistance, Ω		500		500
Readiness time, s			20	
Minimum non-failure operation time, h	5000			
95 per cent resource, h	10000			
Shelf life, y	15			

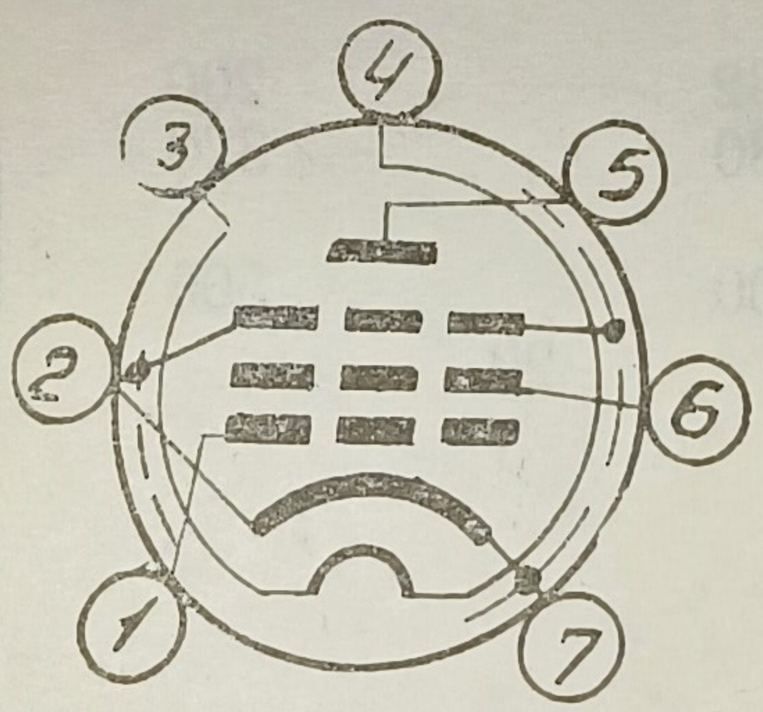
Absolute Maximum Ratings	up to 1500 h	up to 5000 h
Heater voltage, min, V	5.7	6
Heater voltage, max, V	7	6.6
Plate voltage, max, V	300	165
Plate voltage in the cutoff tube, max, V	300	300

The second grid voltage, max, V	160	135
The second grid voltage in the cutoff tube, max, V	300	300
Cathode-heater voltage, max, V	±120	±120
Cathode current (mean value) max, mA	25	20
Resistance in the first grid circuit, max, MΩ	1	1
Plate dissipated power, max, W	3	2.3
The second grid dissipated power, max, W	0.65	0.35
Envelope temperature in the most heated area opposite the plate, °C	150	150

Notes:

1. When operating the tube it is recommended to keep within the values specified by the absolute maximum ratings. Otherwise the tube will become inoperative.
2. The maximum permissible short-time bending force on the tube pin directed to the axis perpendicularly must not exceed 0.5 kgf and when prolonged—0.2 kgf.
3. It is not advisable to use the tube in heater voltage series connection in order to secure tube reliability.
4. When using the tube having a grid with fixed bias one should take care to sustain plate dissipated power within the operate limits.
5. It is not allowed to operate the tube at two or more rated values determining operate conditions.
6. Envelope temperature when operating the tube during 500 h must not exceed +200°C.

Terminal Connections



Bottom view

Electrodes	
1	The first grid
2, 7	Cathode, the third grid, screen
3, 4	Heater
5	Plate
6	The second grid

Construction Features

Height, max—57 mm
Diameter, max—19 mm
Mass, max—15 g