

# 12AX7 Svetlana

## Miniature dual triode

pin #	Electrode name
1	Plate of 2 <sup>nd</sup> triode
2	Grid of 2 <sup>nd</sup> triode
3	Cathode of 2 <sup>nd</sup> triode
4,5,9	Heater
6	Plate of 1 <sup>st</sup> triode
7	Grid of 1 <sup>st</sup> triode
8	Cathode of 1 <sup>st</sup> triode

## Electrical data of new tube

Parameter name	Not less	Not more	Comment
Heater current, ma	320	360	1,4
	160	180	2,4
Grid reverse current, $\mu$ a	-	0.2	3, 4,5,6,7
Plate current, ma	0.75	2.1	3,4, 5, 6
First to second triode balance, %	-	+/-40	3,4, 5, 6
Transconductance, ma/v	1.4	-	3,4, 5, 6
Amplification factor	85	-	3,4, 5, 6
Cathode to heater insulation resistance, MOhm or Cathode to heater leakage current, $\mu$ a	20	-	3, 4, 8
	-	10	3, 4, 8
Plate current at the beginning of the curve, $\mu$ a	-	20	3,4,5,9

### Comments:

1. Heater voltage 6.3v.
2. Heater voltage 12.6v.
3. Heater voltage 6.3v or 12.6v.
4. Heater voltage 6.3v applies at pin 9 and pins 4 or 5 when 4 and 5 are shortened.  
Heater voltage 12.6v applies at pins 4 and 5.
5. Plate voltage 250v.
6. Grid voltage -2v.
7. Grid circuit resistance 0,25 MOhm.
8. Cathode to heater voltage +/-200v.
9. Grid voltage -12v.

### Electrical parameters that could be changed within exploitation

Transconductance, ma/v, not less	1.1
Grid reverse current, $\mu$ a, not more	0.5

## Limited values

Heater voltage, v, not less	6.0 or 12.0
not more	6.6 or 13.2
Plate voltage, v, not more	330
Cathode to heater voltage:	
Positive, v, not more	200
Negative, v, not more	200
Plate current, ma not more	9
Plate dissipation power of each triode, W, not more	1.2
Each triode grid circuit resistance:	
under fixed bias, Mohm, not more	1.0
under automatic bias, Mohm not more	2.2
Plate voltage of cold tube, v, not more	600
Max grid reverse current, v, not more	55

The tube can't be exploited at two or more limited conditions.

## Interelectrode capacitances:

Input capacitance of each triode, pf, nominal	1.6
Output capacitance of 1 <sup>st</sup> triode, pf, nominal	0.46
Transfer capacitance of each triode, pf, nominal	1.7
Output capacitance of 2 <sup>nd</sup> triode, pf, nominal	0.34
Plate to plate capacitance, pf, nominal	0.6
Cathode to heater capacitance, pf, nominal	5.0