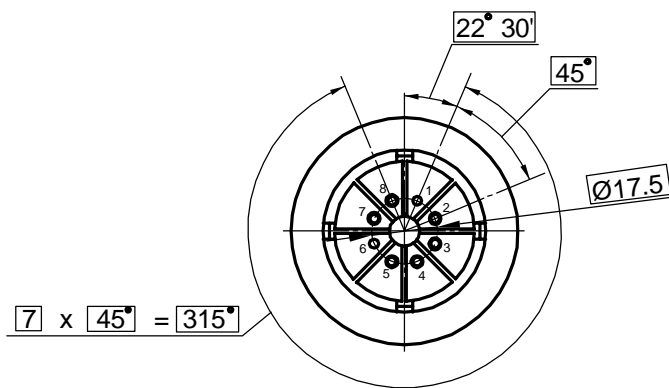
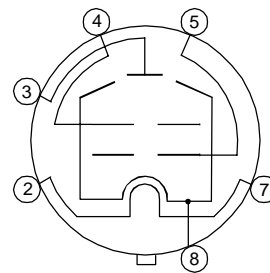


Vacuum tube 6L6G Tung - Sol is a beam tetrode in the glass bulb with octal base, with equipotential cathode, designed to amplify low frequency power in the output stages of HI - FI audio.

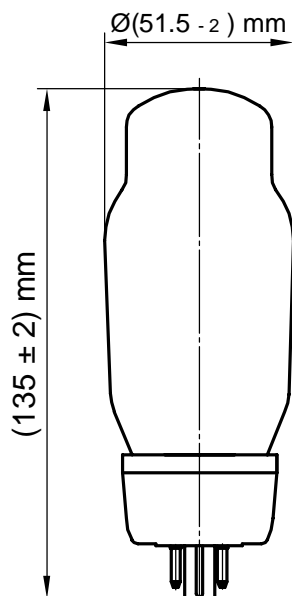
Pin arrangement



Electrode -to - lead connection diagram



Dimensions



Lead designation	Name of electrode
1, 6	No
2, 7	Heater
3	Plate
4	Grid 2
5	Grid 1
8	Cathode, beam-forming screen

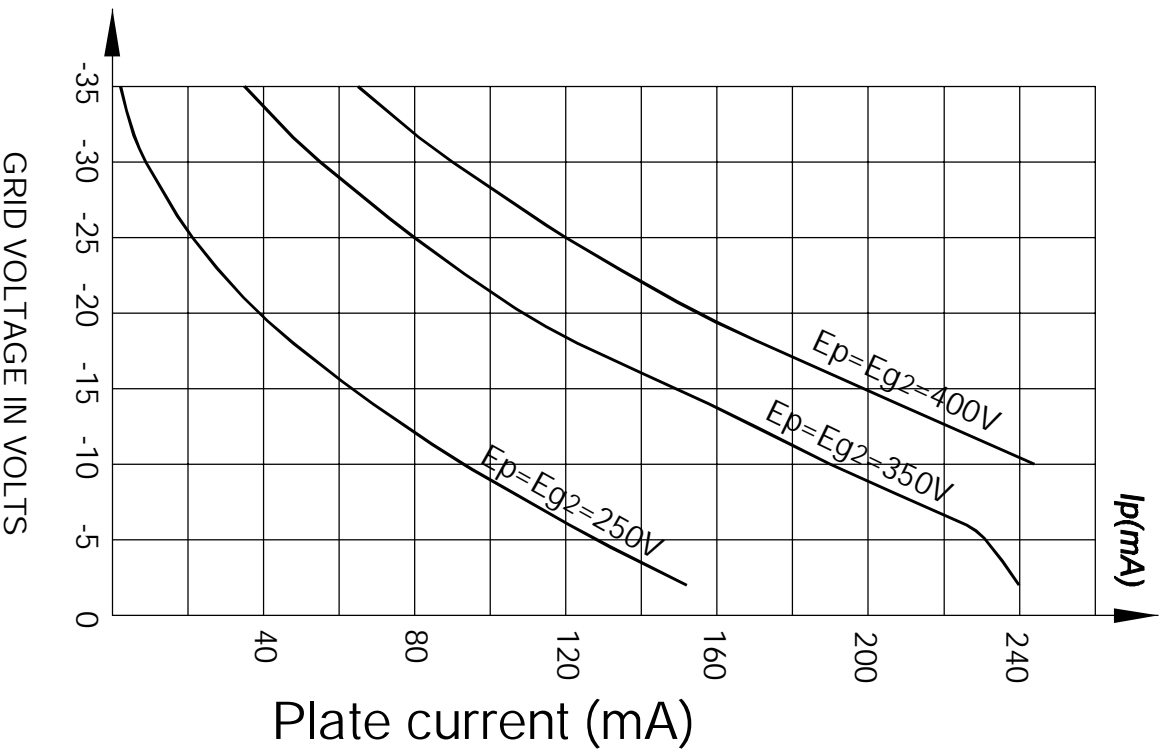
Parameters, conditions and units	Nominal	
	min	max
First grid reverse current, $\mu\text{A}$ (at: filament voltage 6.3 V, plate voltage 350 V, first grid voltage minus 18.0 V, second grid voltage 250 V, first grid circuit resistance 0.1M $\Omega$ )	—	0.7
Heater current, A	0.845	1.06
Plate current, mA (at: filament voltage 6.3 V, plate voltage 350 V, first grid voltage minus 18.0 V, second grid voltage 250 V )	42	72
Second grid current, mA (at: filament voltage 6.3 V, plate voltage 350 V, first grid voltage minus 18.0 V, second grid voltage 250 V )	—	6.0
Output power, W (at: filament voltage 6.3 V, plate voltage 350 V, first grid voltage minus 18.0 V, second grid voltage 250 V, plate circuit resistance 4.2 k $\Omega$ first grid alternating voltage, efficacious 12.7 V )	8	—
First grid cut-off voltage, negative, V (at: filament voltage 6.3 V, plate voltage 350 V, second grid voltage 250 V, )	—	60
Slope of characteristic, mA/V (at: filament voltage 6.3 V, anode voltage 350 V, first grid voltage minus 18.0 V, second grid voltage 250 V )	4.2	7.0
Distortion factor, %	—	15.0
Cahtode - heater insulation resistance, M $\Omega$ (at: filament voltage 6.3 V, cathode -heater voltage $\pm 100$ V)	2.0	—

## Maximum permissible operating conditions

Parameters, units	Nominal	
	min	max
Filament voltage, V	5.7	6.9
Plate voltage, V	—	500
Second grid voltage, V	—	450
Cathode - heater voltage, V	—	$\pm 200$
Cathode current, mA	—	100
First grid voltage, negative, V	—	100
Power dissipation at the plate, W	—	30
Power dissipation at the second grin, W	—	5
First grid circuit resistance for each, M $\Omega$		
fixed bias	—	0.1
self - bias	—	0.51
Temperature at the most heated part of the envelope, K $^{\circ}$	—	523

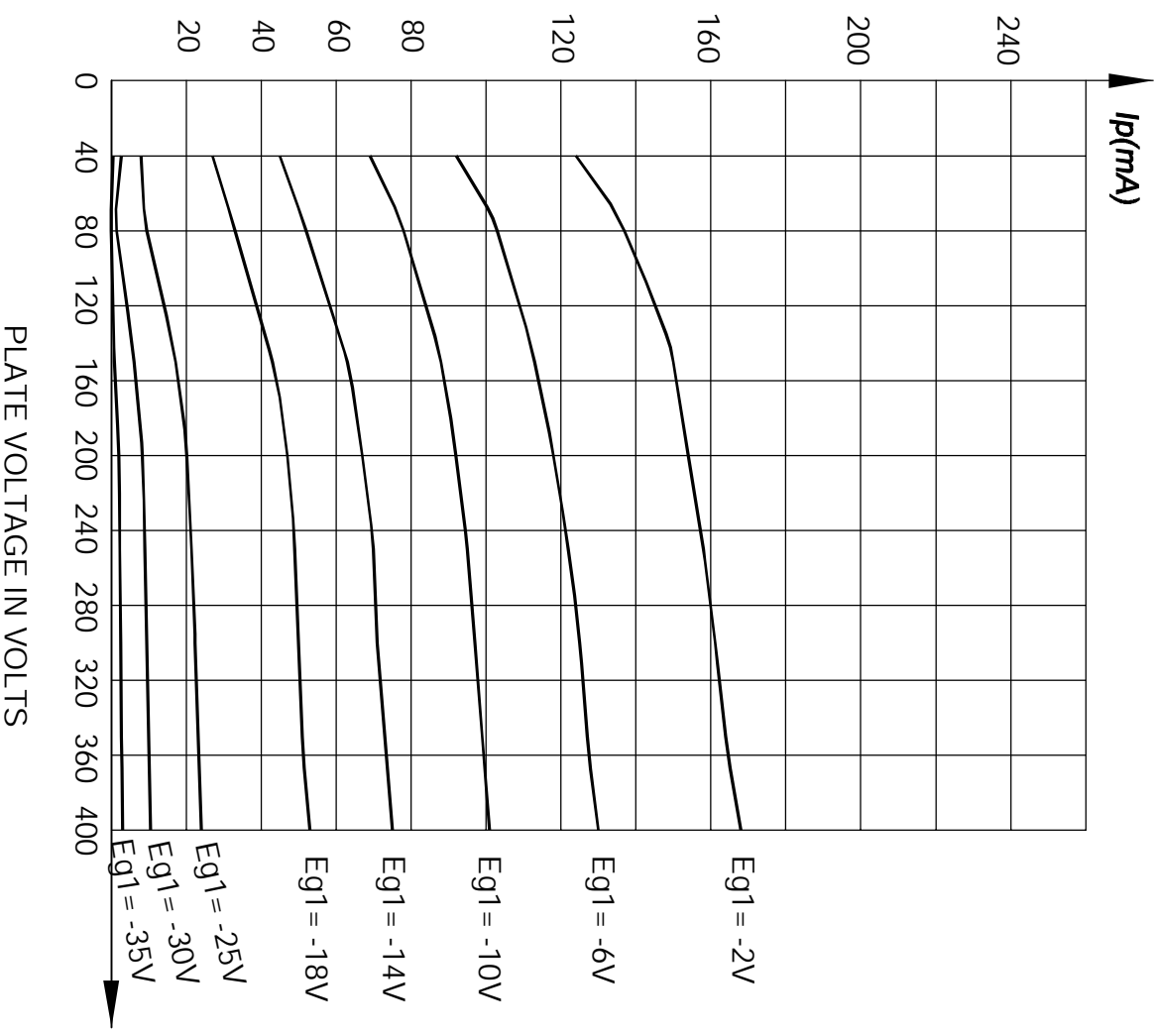
$I_p = f(E_g)$

$E_f = 6.3V$



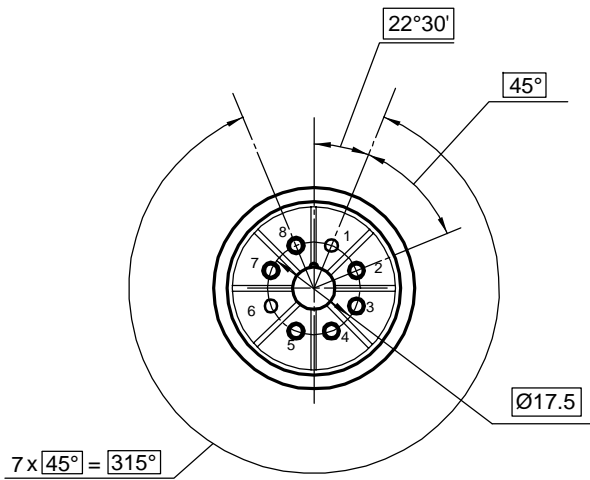
$I_p = f(E_g)$

$E_f = 6.3V, E_{g2} = 250V$

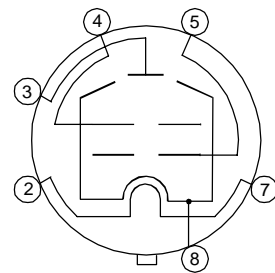


Vacuum tube 6L6GC STR Tung - Sol is a beam tetrode in the glass bulb with octal base, with equipotential cathode, designed to amplify low frequency power in the output stages of HI - FI audio.

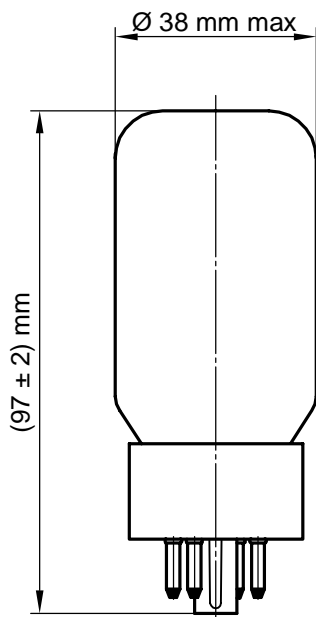
Pin arrangement



Electrode - to - lead connection diagram



Dimensions



Lead designation	Name of electrode
1, 6	No
2, 7	Heater
3	Plate
4	Grid 2
5	Grid 1
8	Cathode, beam-forming screen

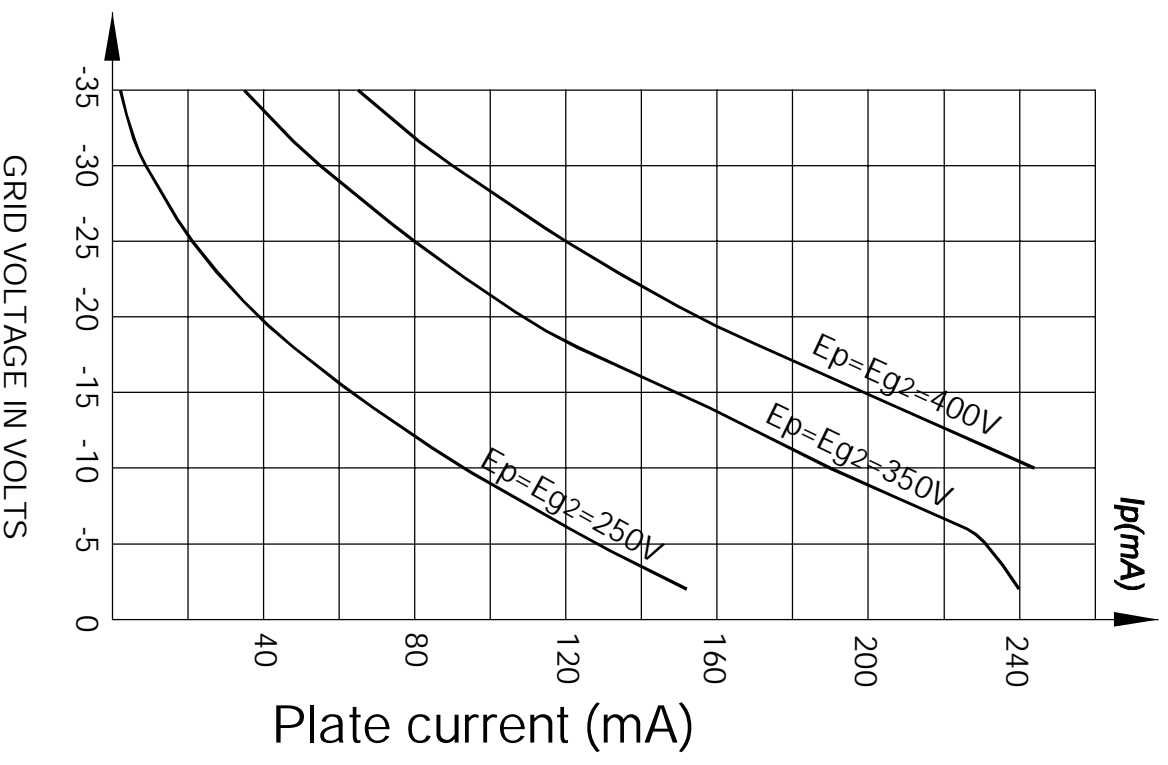
Parameters, conditions and units	Nominal	
	min	max
First grid reverse current, $\mu\text{A}$ (at: filament voltage 6.3 V, plate voltage 350 V, first grid voltage minus 18.0 V, second grid voltage 250 V, first grid circuit resistance 0.1M $\Omega$ )	—	0.7
Heater current, A	0.845	1.06
Plate current, mA (at: filament voltage 6.3 V, plate voltage 350 V, first grid voltage minus 18.0 V, second grid voltage 250 V )	42	72
Second grid current, mA (at: filament voltage 6.3 V, plate voltage 350 V, first grid voltage minus 18.0 V, second grid voltage 250 V )	—	6.0
Output power, W (at: filament voltage 6.3 V, plate voltage 350 V, first grid voltage minus 18.0 V, second grid voltage 250 V, plate circuit resistance 4.2 k $\Omega$ first grid alternating voltage, efficacious 12.7 V )	8	—
First grid cut-off voltage, negative, V (at: filament voltage 6.3 V, plate voltage 350 V, second grid voltage 250 V, )	—	60
Slope of characteristic, mA/V (at: filament voltage 6.3 V, anode voltage 350 V, first grid voltage minus 18.0 V, second grid voltage 250 V )	4.0	7.0
Distortion factor, %	—	15.0
Cathode - heater insulation resistance, M $\Omega$ (at: filament voltage 6.3 V, cathode -heater voltage $\pm$ 100 V)	2.0	—

## Maximum permissible operating conditions

Parameters, units	Nominal	
	min	max
Filament voltage, V	5.7	6.9
Plate voltage, V	—	500
Second grid voltage, V	—	450
Cathode - heater voltage, V	—	$\pm$ 200
Cathode current, mA	—	100
First grid voltage, negative, V	—	100
Power dissipation at the plate, W	—	30
Power dissipation at the second grid, W	—	5
First grid circuit resistance for each, M $\Omega$		
fixed bias	—	0.1
self - bias	—	0.51
Temperature at the most heated part of the envelope, K $^{\circ}$	—	523

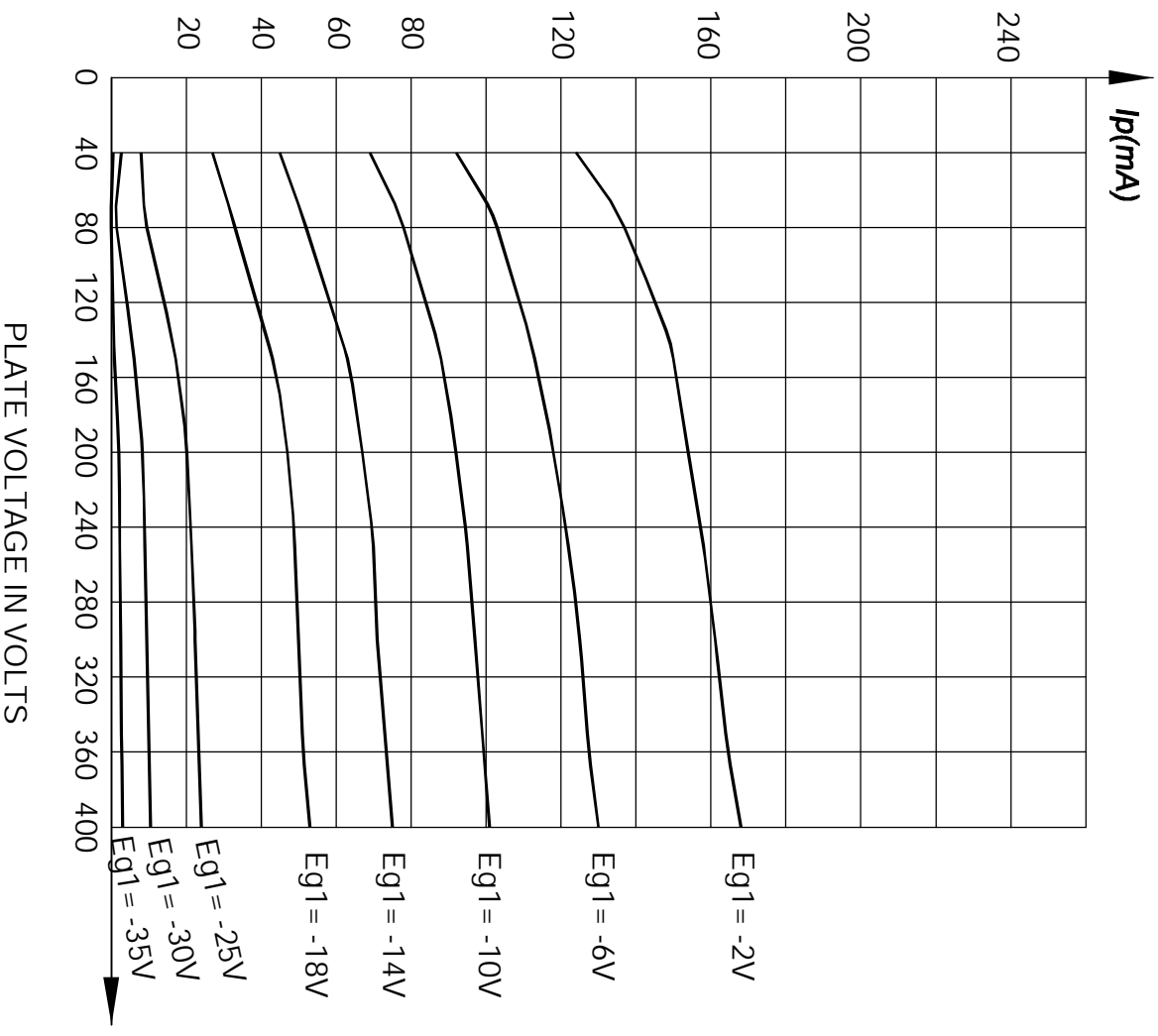
$I_p = f(E_{g1})$

$E_f = 6.3V$



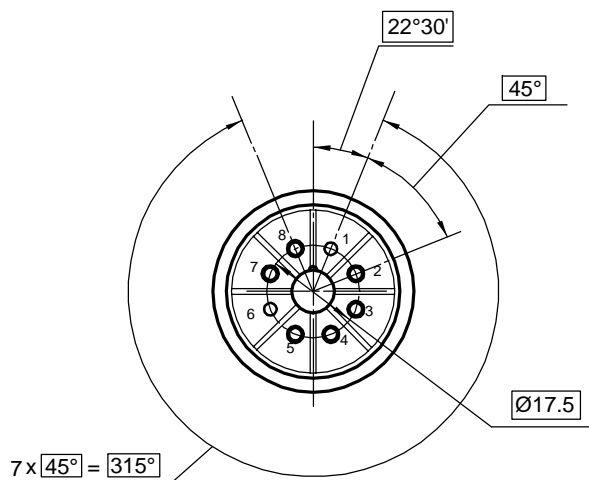
$I_p = f(E_{g2})$

$E_f = 6.3V, E_{g1} = 250V$

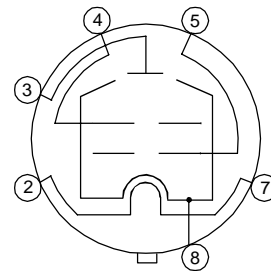


Vacuum tube 5881 Tung - Sol is a beam tetrode in the glass bulb with octal base, with equipotential cathode, designed to amplify low frequency power in the output stages of HI - FI audio.

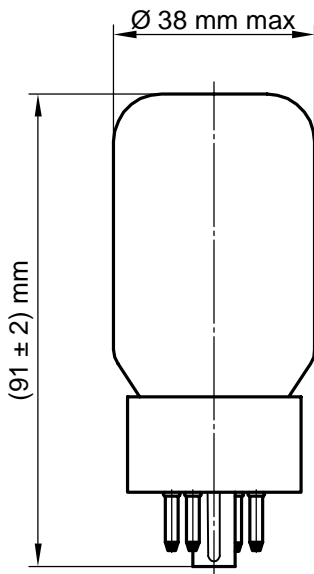
Pin arrangement



Electrode -to - lead connection diagram



Dimensions



Lead designation	Name of electrode
1, 6	No
2, 7	Heater
3	Plate
4	Grid 2
5	Grid 1
8	Cathode, beam-forming screen

Parameters, conditions and units	Nominal	
	min	max
First grid reverse current, $\mu\text{A}$ (at: filament voltage 6.3 V, plate voltage 250 V, first grid voltage minus 14.0 V, second grid voltage 250 V, first grid circuit resistance 0.51M $\Omega$ )	—	0.7
Heater current, A	0.840	0.920
Plate current, mA (at: filament voltage 6.3 V, plate voltage 250 V, first grid voltage minus 14.0 V, second grid voltage 250 V)	60	88
Second grid current, mA (at: filament voltage 6.3 V, plate voltage 250 V, first grid voltage minus 14.0 V, second grid voltage 250 V)	—	8.0
Output power, W (at: filament voltage 6.3 V, plate voltage 250 V, first grid voltage minus 14.0 V, second grid voltage 250 V, plate circuit resistance 2.5 k $\Omega$ first grid alternating voltage, efficacious 9.8 V)	5.8	—
Plate current at the beginning of the characteristic, mA (at: filament voltage 6.3 V, plate voltage 250 V, first grid voltage minus 35.0 V, second grid voltage 250 V)	—	10
Slope of characteristic, mA/V (at: filament voltage 6.3 V, anode voltage 250 V, first grid voltage minus 14.0 V, second grid voltage 250 V)	5.2	7.0
Cathode - heater insulation resistance, M $\Omega$ (at: filament voltage 6.3 V cathode -heater voltage $\pm$ 250 V)	4.0	—

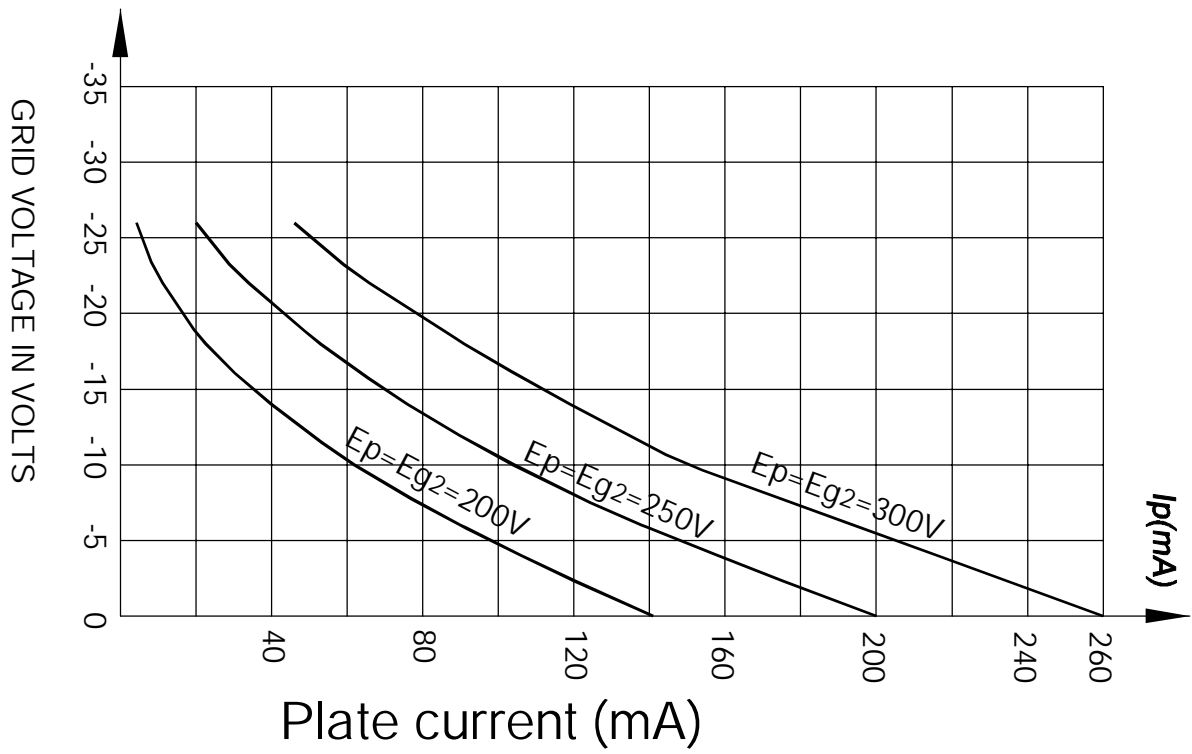
### Maximum permissible operating conditions

Parameters, units	Nominal	
	min	max
Filament voltage, V	5.76	7.0
Plate voltage, V	—	375
Second grid voltage, V	—	300
Cathode - heater voltage, V	—	$\pm$ 250
Cathode current, mA	—	90
First grid voltage, negative, V	—	100
Power dissipation at the plate, W	—	20.5
Power dissipation at the second grid, W	—	2
First grid circuit resistance for each, M $\Omega$	—	0.51
Temperature at the most heated part of the envelope, K $^{\circ}$	—	513



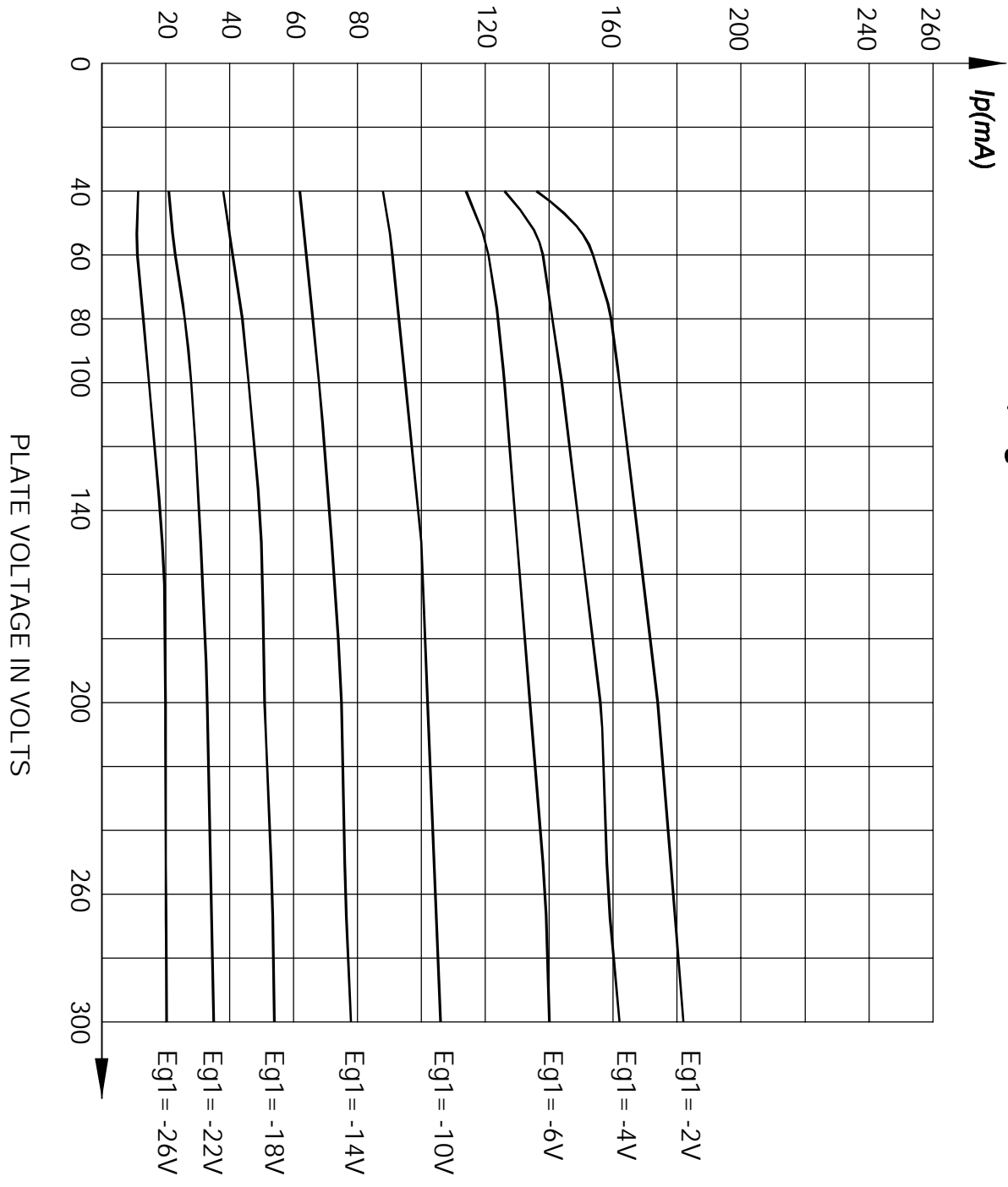
$I_p = f(E_g)$

$E_f = 6.3V$



$I_p = f(E_g)$

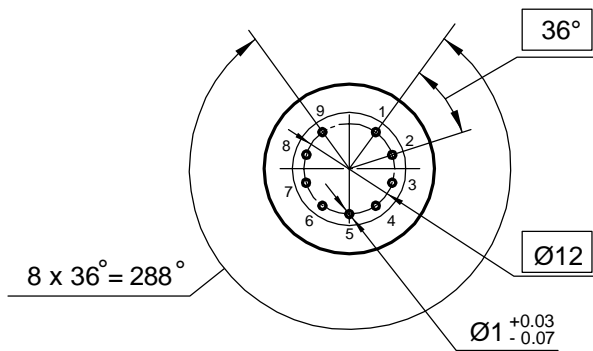
$E_f = 6.3V, E_{g2} = 250V$



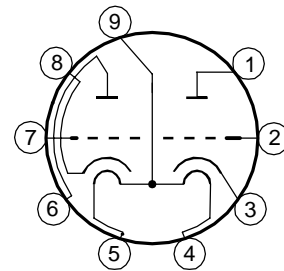
# 12AX7 Tung-Sol

Vacuum tube 12AX7 Tung-Sol is a miniature twin triode with equipotential cathodes, designed to amplify low frequency voltage in the output stages of HI-FI audio.

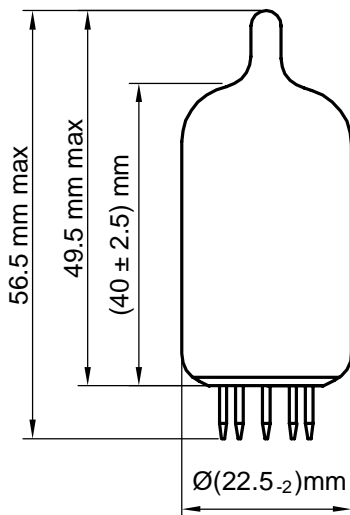
Pin arrangement



Electrode -to - lead connection diagram



Dimensions



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

## Electrical parameters

Parameters, conditions and units	Nominal	
	min	max
Heater current, mA at: filament voltage 6.3 V at: filament voltage 12.6 V	320 160	365 183
Grid back current, $\mu\text{A}$ , ( at: filament voltage 6.3 V or 12.6 V, plate voltage 250 V, grid voltage minus 2.0 V, resistance in grid circuit 1.0 M $\Omega$ )	—	0.2
Plate current, mA, ( at: filament voltage 6.3 V or 12.6 V, plate voltage 250 V, grid voltage minus 2.0 V )	0.75	2.1
First and second triodes plate current difference, % ( at: filament voltage 6.3 V or 12.6 V, plate voltage 250 V, grid voltage minus 2.0 V )	—	$\pm 40$
Plate current at the beginning of the characteristic, $\mu\text{A}$ ( at: filament voltage 6.3 V or 12.6 V, plate voltage 250 V, grid voltage minus 4.5 V )	—	30
Slope of characteristic, mA/V ( at: filament voltage 6.3 V or 12.6 V, plate voltage 250 V, grid voltage minus 2.0 V )	1.4	—
Amplification factor ( at: filament voltage 6.3 V or 12.6 V, plate voltage 250 V, grid voltage minus 2.0 V )	83	—
Cathode - heater insulation resistance, M $\Omega$ ( at: filament voltage 6.3 V or 12.6 V, cathode -heater voltage $\pm 200$ V )	20	—

## Maximum permissible operating conditions

Parameters, units	Nominal	
	min	max
Filament voltage, V for parallel connection for series connection	6 12	6.6 13.2
Plate voltage, V	—	330
Cathode - heater voltage, V	—	$\pm 200$
Cathode current, mA	—	9
Power dissipation at the plate of each triode, W	—	1.2
Grid circuit resistance for each of the triodes, M $\Omega$ fixed bias self - bias	— —	1.0 2.2

