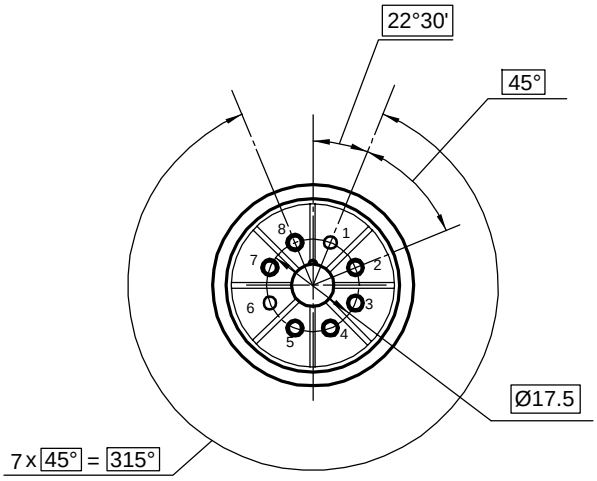
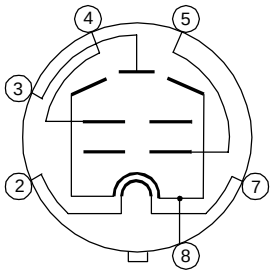
Vacuum tube 7581A Tung - Sol is a beam tetrode in the glass bulb with octal base, with equipotential cathode, designed to amplify low frequency power in the output stages of HI - FI audio.

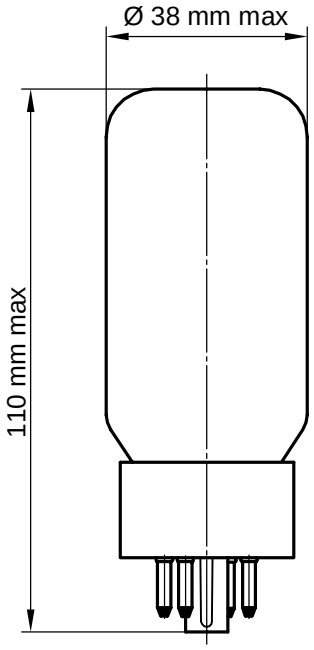
Pin arrangement



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

Electrical parameters

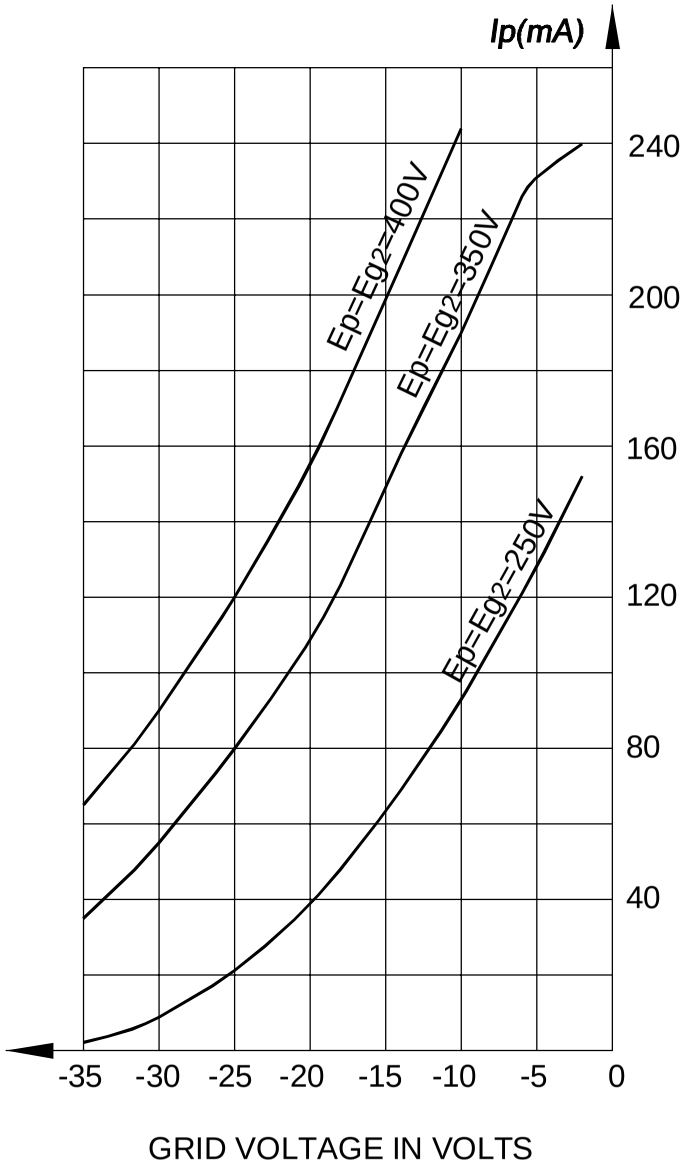
Parameters, conditions and units	Nominal	
	min	max
First grid reverse current, µA (at: filament voltage 6.3 V, plate voltage 350 V, first grid voltage minus 18.0 V, second grid voltage 250 V,first grid circuit resistance 0.1M Ω)	—	0.7
Heater current, A	0.845	1.06
Plate current, mA (at: filament voltage 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 Ω 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,% (at: filament voltage 6.3 V, plate voltage 350 V, first grid voltage minus 18 V, second grid voltage 250 V, plate circuit resistance 4.2 kΩ , first grid alternating voltage,efficacious 12.7 V)	—	15.0
Cahtode - heater insulation resistance, M Ω (at: filament voltage 6.3 V, cathode -heater voltage ± 100 V)	2.0	—

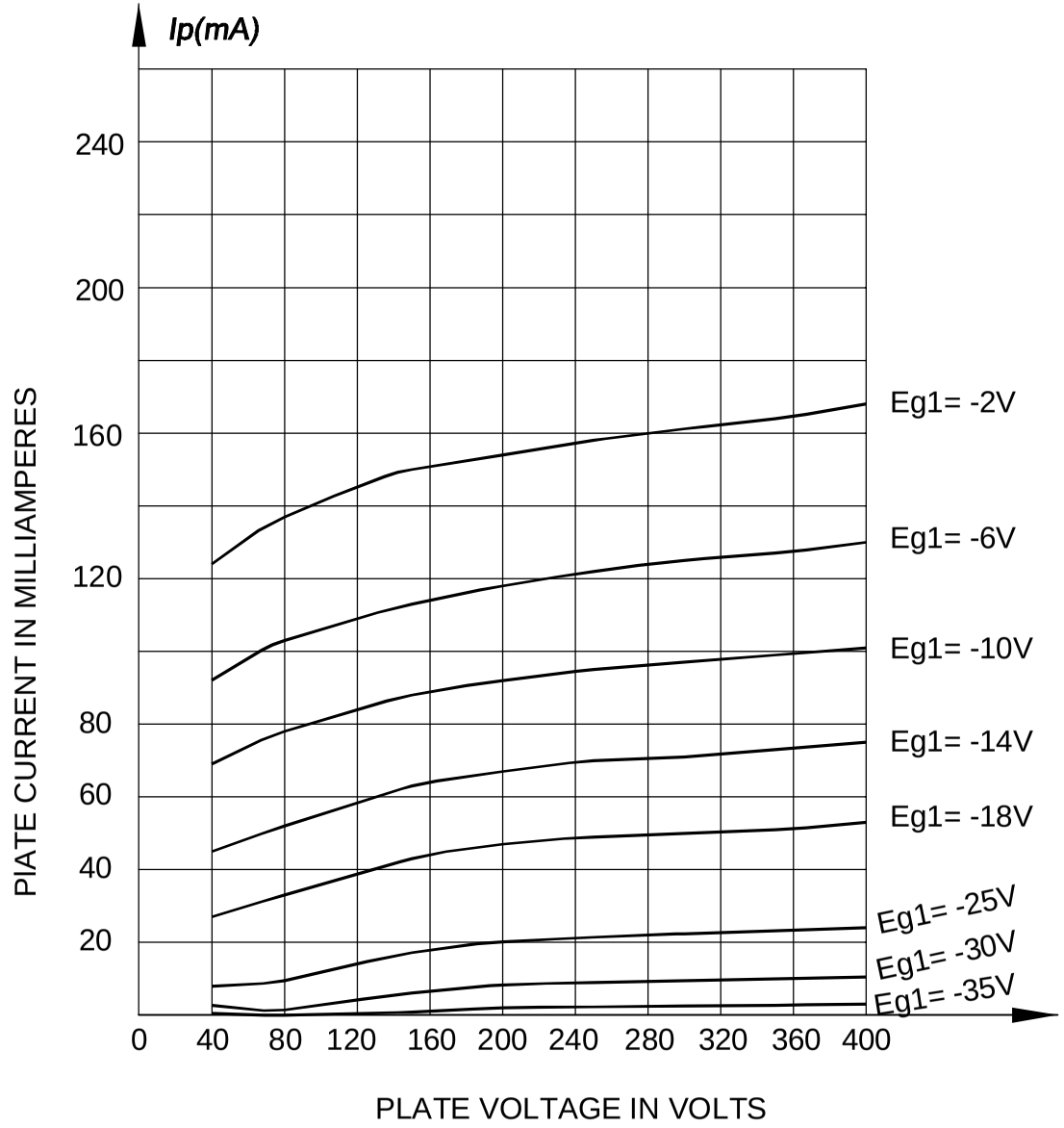
Operating conditions limits.

Parameters, units	Nominal	
	min	max
Filament voltage, V	5.7	6.9
Cathode - heater voltage, V	—	± 200
Cathode current, mA	—	100
First grid voltage, negative, V	—	100
Power dissipation at the plate, W	—	35
Power dissipation at the second grid, W	—	5
First grid circuit resistance ,M Ω fixed bias self - bias	 — —	 0.1 0.51
Temperature at the most heated part of the envelope, K°	—	523

Ip=f(Eg1)

Ef=6.3V



Ip=f(Ep)

Ef=6.3V, Eg2=250V