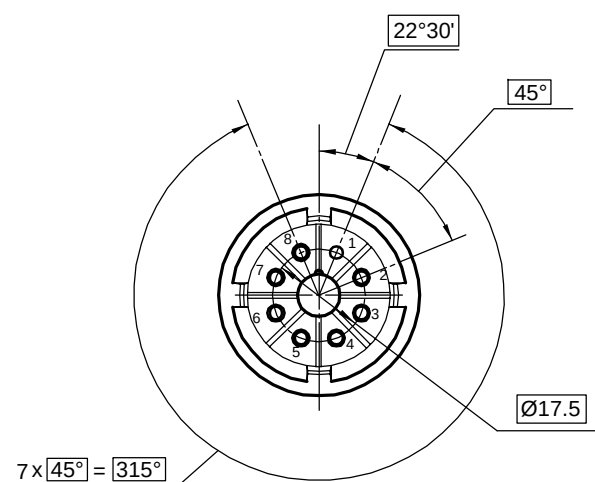
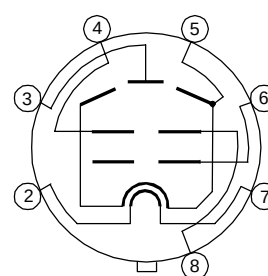


Vacuum tube 7591A EH is a beam tetrode in the glass bulb with octal base, with equipotential cathode, designed to amplify low frequency power in the output stages of HI - FI audio.

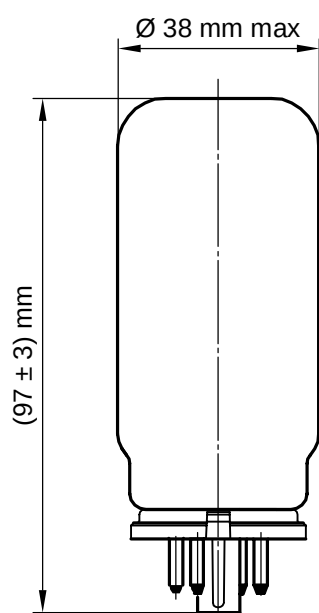
Pin arrangement



Electrode -to - lead connection diagram



Dimensions



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

Parameters, conditions and units	Nominal	
	min	max
First grid reverse current, μA (at: filament voltage 6.3 V plate voltage 300 V, first grid voltage minus 10.0 V, second grid voltage 300 V, first grid circuit resistance 0.3M Ω)	—	0.7
Heater current, A	0.9	1.24
Plate current, mA (at: filament voltage 6.3 V plate voltage 300 V, first grid voltage minus 10.0 V, second grid voltage 300 V)	50	84
Second grid current, mA (at: filament voltage 6.3 V plate voltage 300 V, first grid voltage minus 10.0 V, second grid voltage 300 V)	—	15
Output power, W (at: filament voltage 6.3 V plate voltage 300 V, first grid voltage minus 10.0 V, second grid voltage 300 V, plate circuit resistance 3.0 k Ω first grid alternating voltage, efficacious 7.1 V)	7.8	—
First grid cut-off voltage, negative, V (at: filament voltage 6.3 V plate voltage 300 V, second grid voltage 300 V,)	—	38
Slope of characteristic, mA/V (at: filament voltage 6.3 V anode voltage 300 V, first grid voltage minus 10.0 V, second grid voltage 300 V)	7.8	12
Distortion factor, % (at: filament voltage 6.3 V, plate voltage 300 V, first grid voltage minus 10 V, second grid voltage 300 V, plate circuit resistance 3.0 k Ω, first grid alternating voltage, efficacious 7.1 V)	—	17.0
Cahtode - heater insulation resistance, M Ω (at: filament voltage 6.3 V cathode -heater voltage ± 100 V)	2.0	—

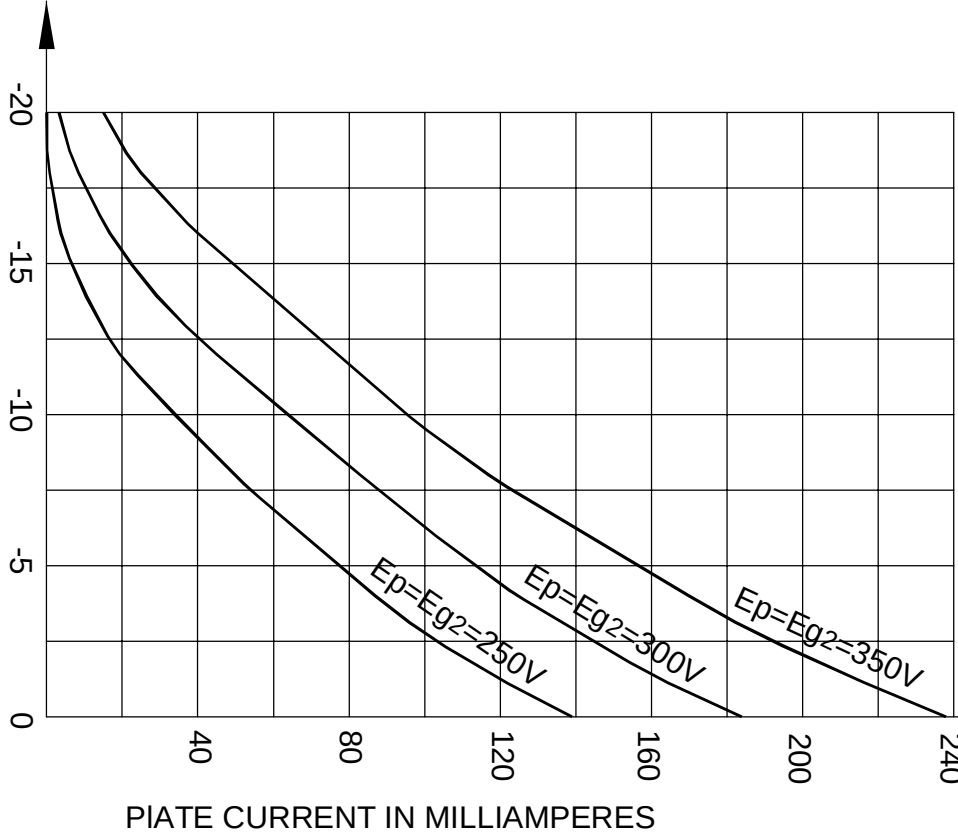
Operating conditions limits.

Parameters, units	Nominal	
	min	max
Filament voltage, V	6.0	6.6
Cathode - heater voltage, V	—	± 100
Cathode current, mA	—	90
First grid voltage, negative, V	—	100
Power dissipation at the plate, W	—	19
Power dissipation at the second grid, W	—	4.5
First grid circuit resistance ,M Ω fixed bias	—	0.3
self - bias	—	1.0
Temperature at the most heated part of the envelope, K°	—	523

$I_p=f(E_{g1})$

$E_f=6.3V$

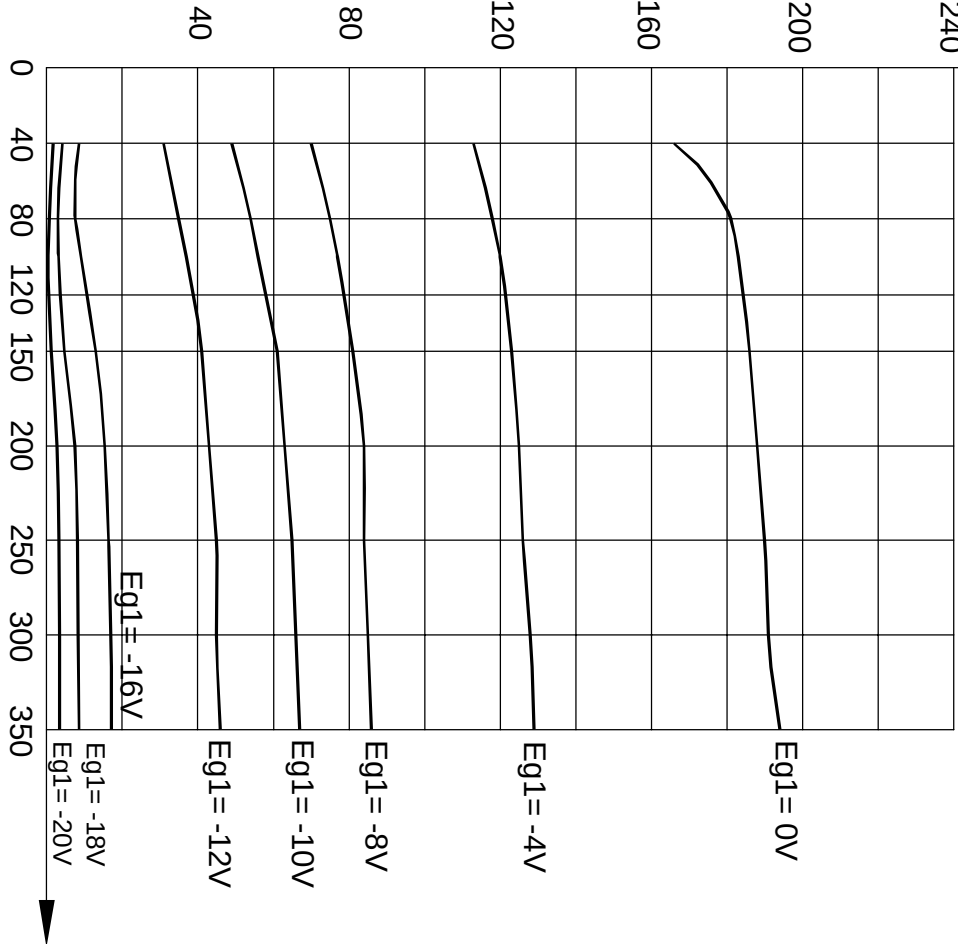
$I_p(mA)$



$I_p=f(E_p)$

$E_f=6.3V, E_{g2}=300V$

$I_p(mA)$



GRID VOLTAGE IN VOLTS

PLATE VOLTAGE IN VOLTS