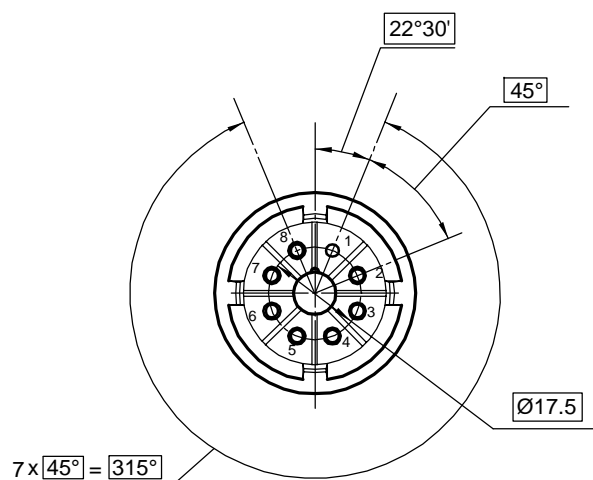
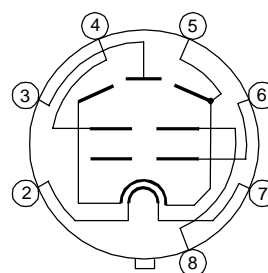


Vacuum tube 7591A EH is a beam tetrode in the glass bulb with octal base, with equipotential cathode, designed to amplify low frequency power in the output stages of HI - FI audio.

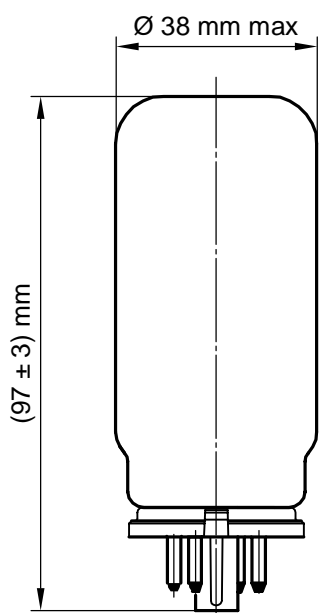
Pin arrangement



Electrode -to - lead connection diagram



Dimensions

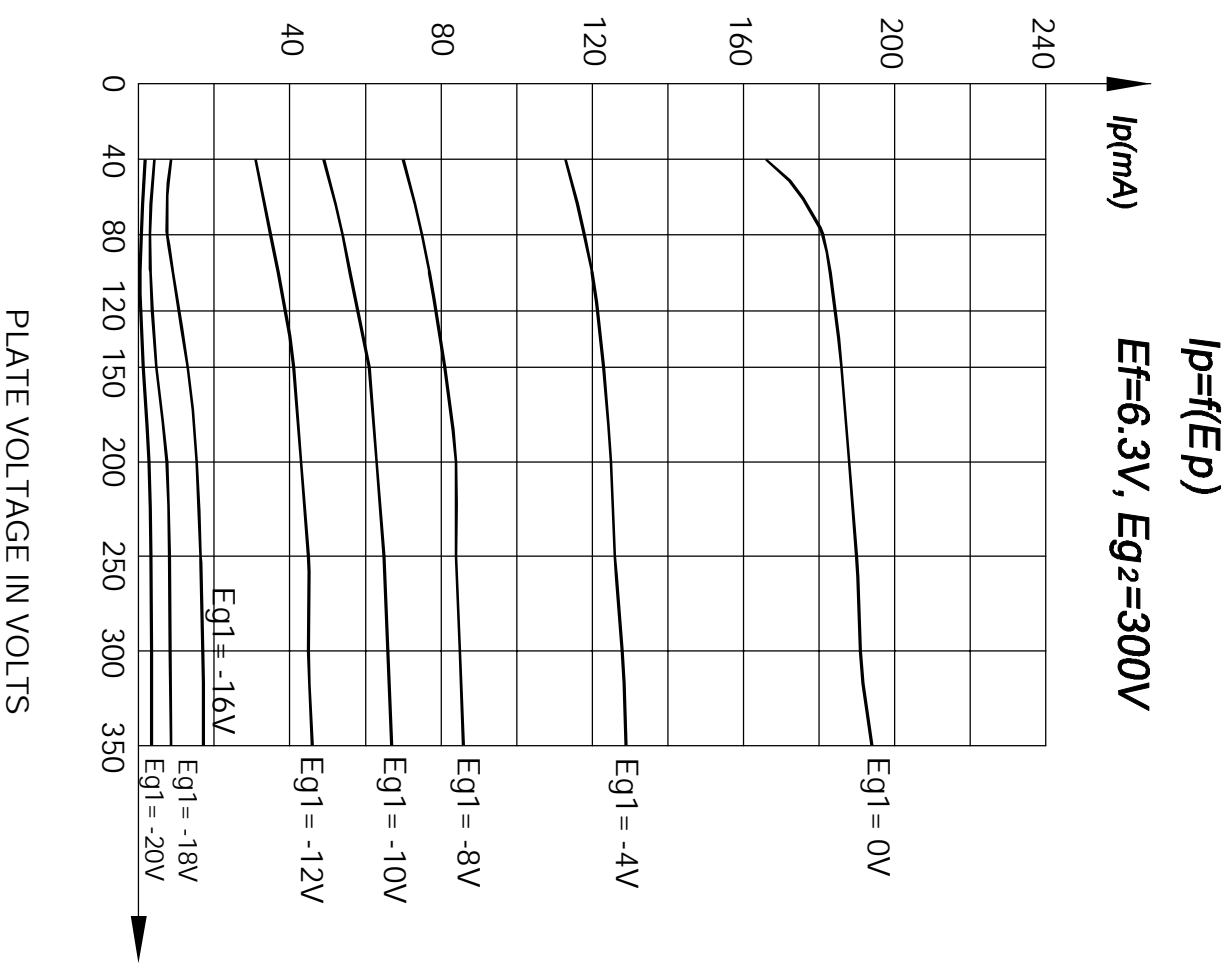
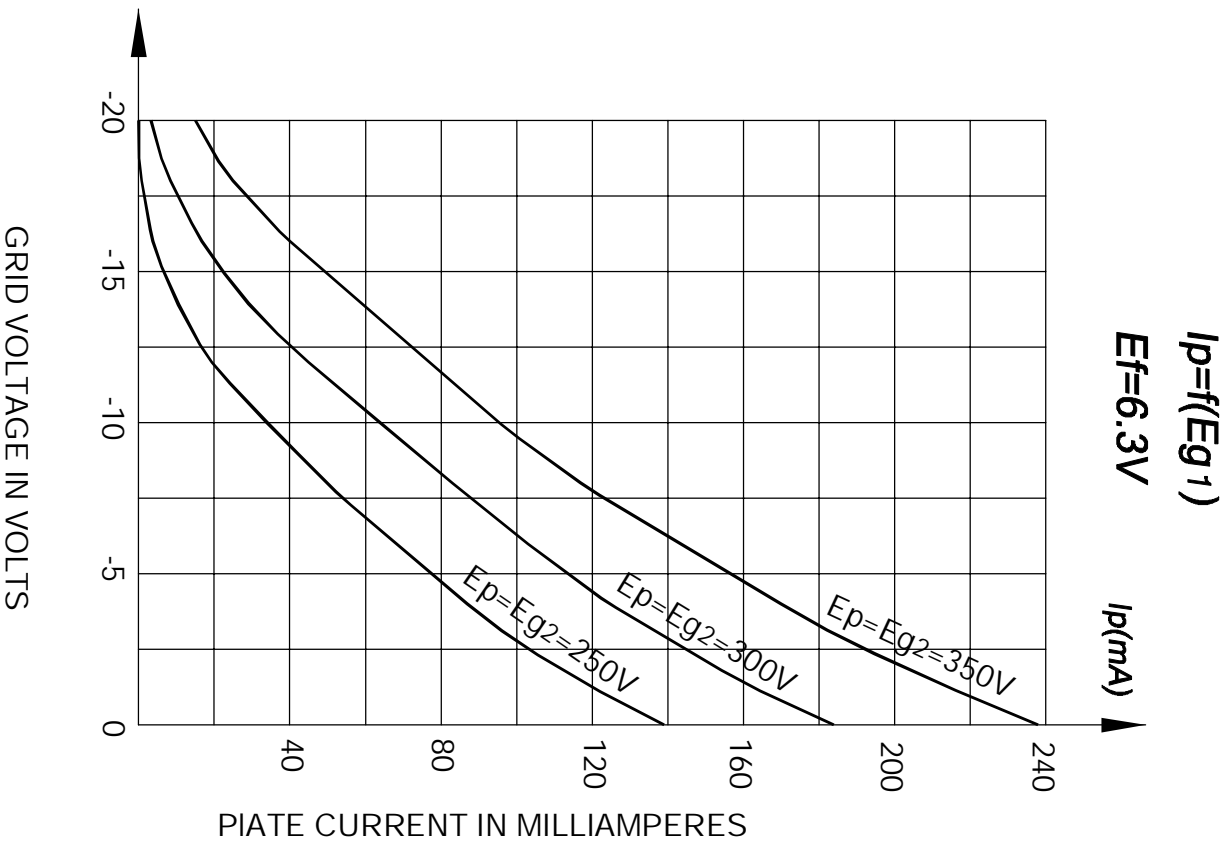


| Lead designation | Name of electrode            |
|------------------|------------------------------|
| 1                | No                           |
| 2, 7             | Heater                       |
| 3                | Plate                        |
| 4                | Grid 2             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

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

## Operating conditions limits.

| Parameters, units   | Nominal |           |
|---|---------|-----------|
|   | min     | max       |
| Filament voltage, V   | 6.0     | 6.6       |
| Cathode - heater voltage, V                                       | —       | $\pm 100$ |
| 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 $\Omega$<br>fixed bias           | —       | 0.3       |
| self - bias   | —       | 1.0       |
| Temperature at the most heated part of the envelope, K $^{\circ}$ | —       | 523       |



GRID VOLTAGE IN VOLTS

PLATE VOLTAGE IN VOLTS