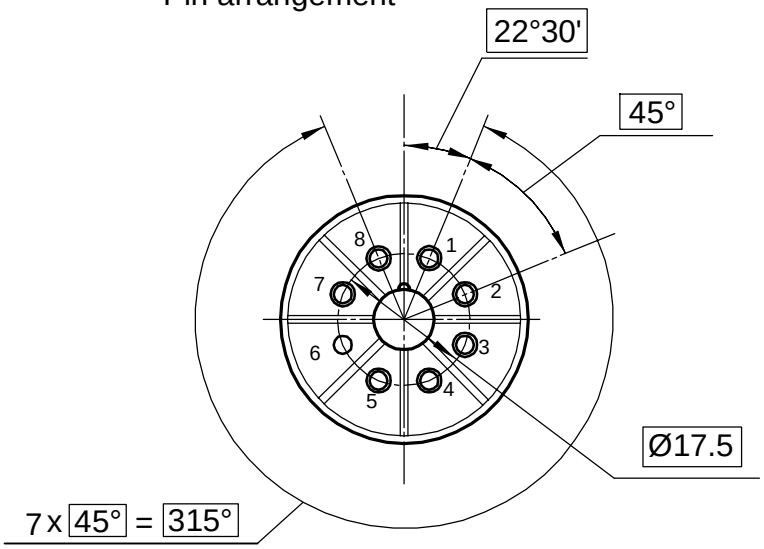
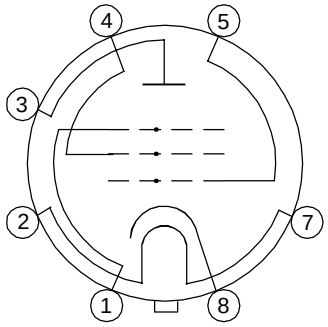
Vacuum tube EL34 Mullard is a output pentod in the glass bulb, with equipotential cathode, designed to amplify low frequency power in the output stages of HI - FI audio.

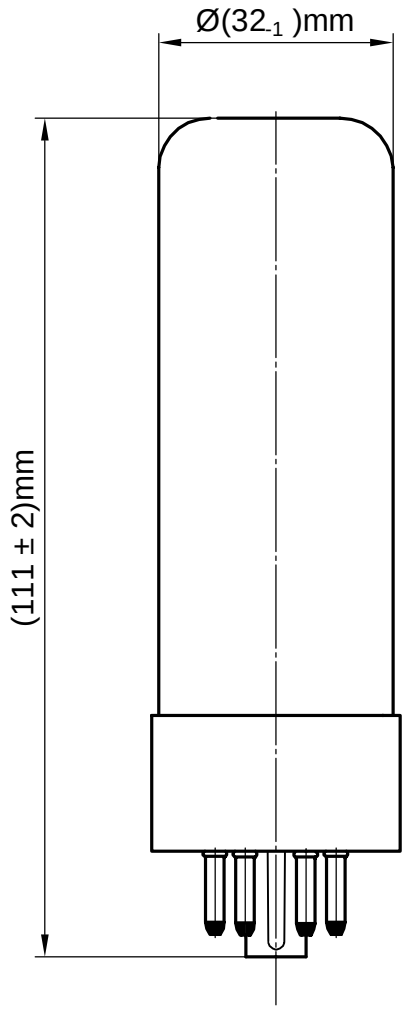
Pin arrangement



Electrode -to - lead connection diagram



Dimensions

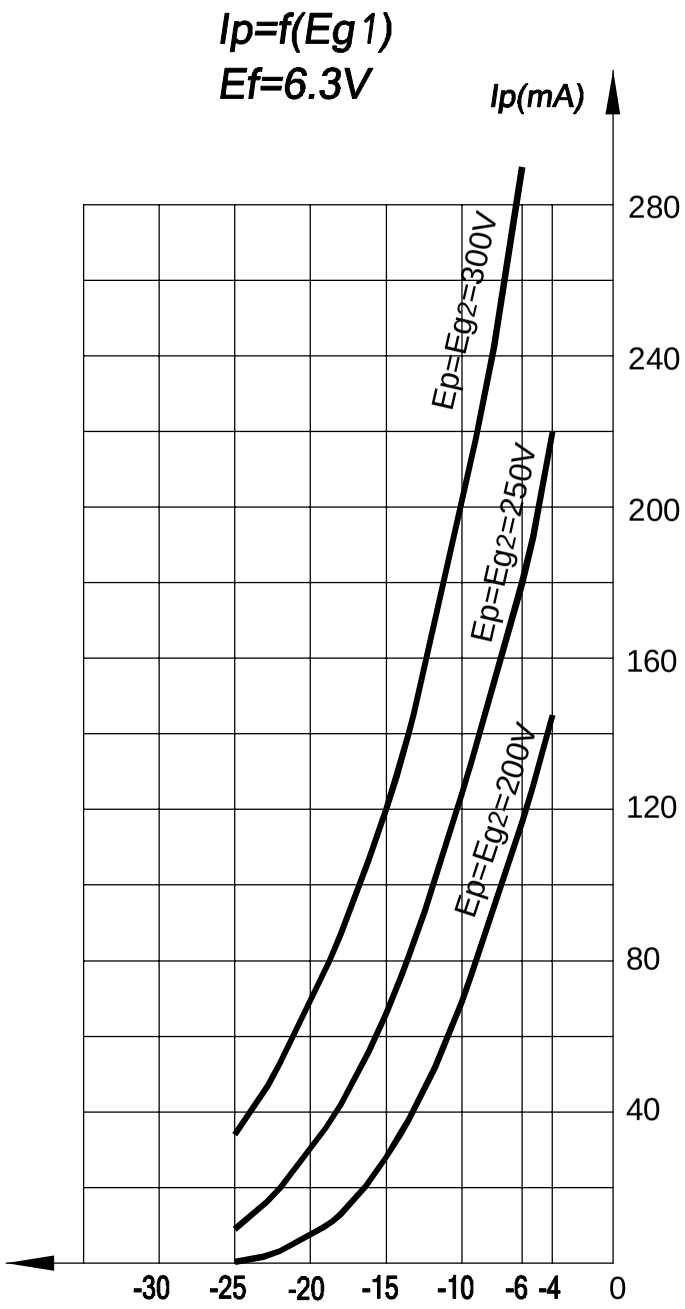
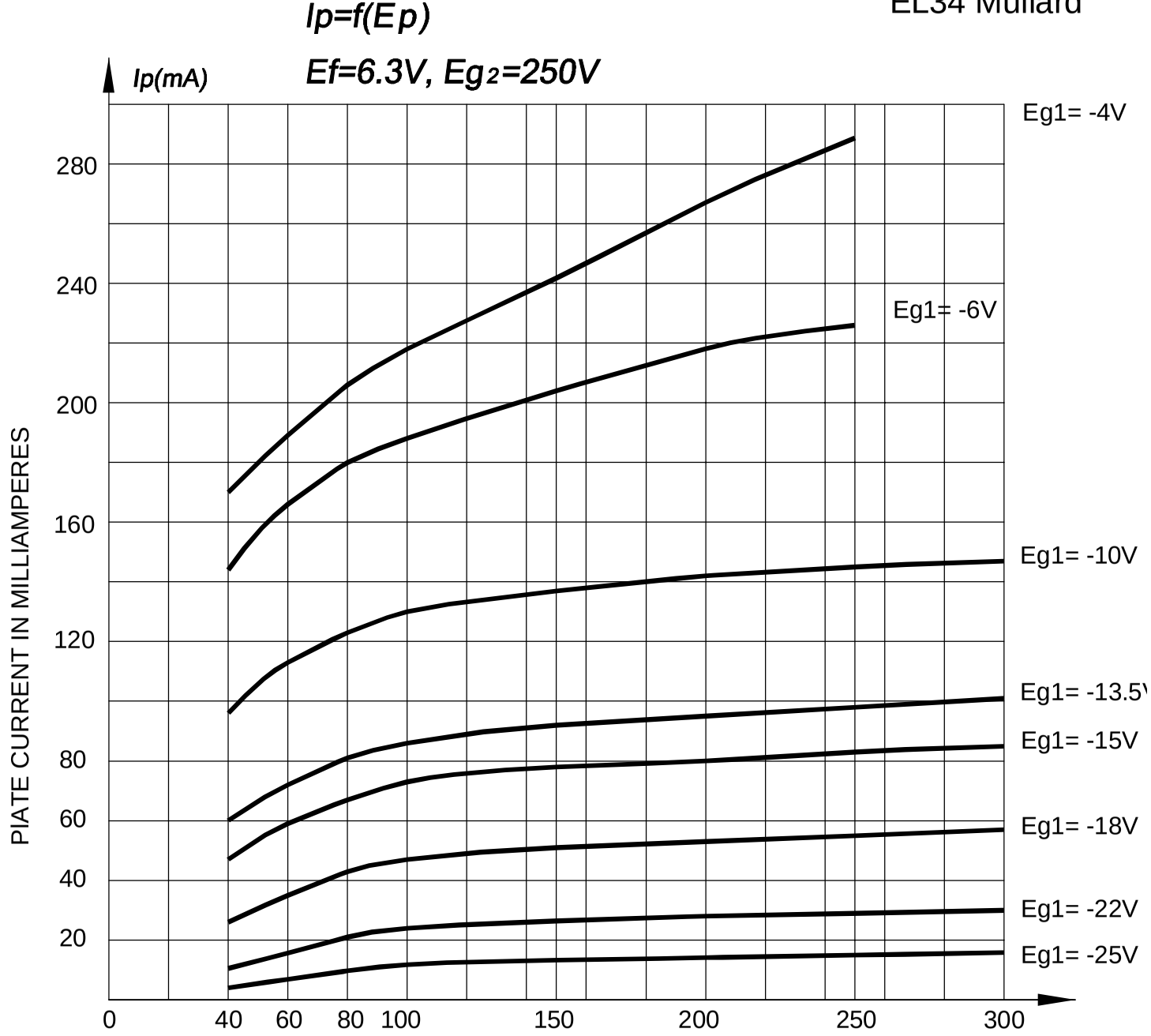


Lead designation	Name of electrode
1	Grid 3
2, 7	Heater
3	Plate
4	Grid 2
5	Grid 1
6	No
8	Cathode

Electrical parameters

Parameters, conditions and units	Nominal	
	min	max
First grid reverse current, µA (at: filament voltage 6.3 V, plate voltage 250 V, first grid voltage minus 13.5 V, second grid voltage 265 V, first grid circuit resistance 0.51 MΩ)	—	1.5
Heater current, A	1.35	1.65
Plate current, mA (at: filament voltage 6.3 V, plate voltage 250 V, first grid voltage minus 13.5 V, second grid voltage 265 V)	80	120
Second grid current, mA (at: filament voltage 6.3 V, plate voltage 250 V, first grid voltage minus 13.5 V, second grid voltage 265 V)	10	20
Output power, W (at: filament voltage 6.3 V, plate voltage 250 V, first grid voltage minus 13.5 V, second grid voltage 265 V, plate circuit resistance 2.0 kΩ, first grid alternating voltage, efficacious 8.7 V)	8.5	—
First grid cut-off voltage, negative, V (at: filament voltage 6.3 V, plate voltage 250 V, second grid voltage 265 V)	—	- 48
Slope of characteristic, mA/V (at: filament voltage 6.3 V, anode voltage 250 V, first grid voltage minus 13.5 V, second grid voltage 265 V)	9.5	15
Distortion factor,% (at: filament voltage 6.3 V, plate voltage 265 V, first grid voltage minus 13.5 V, second grid voltage 265 V, plate circuit resistance 2.0 kΩ, first grid alternating voltage, efficacious 8.7 V)	—	13.5
Cahtode - heater insulation resistance, MΩ (at: filament voltage 6.3 V cathode -heater voltage ± 100 V)	2	—

Operating conditions limit

Parameters, units	Nominal	
	min	max
Filament voltage, V	5.5	7.0
Cathode - heater voltage, V	—	± 100
Cathode current, mA	—	150
Power dissipation at the plate, W	—	25
Power dissipation at the second grin, W	—	8
First grid circuit resistance for each, MΩ		
fixed bias	—	0.5
self - bias	—	0.7
Temperature at the most heated part of the envelope, K°	—	523

EL34 Mullard