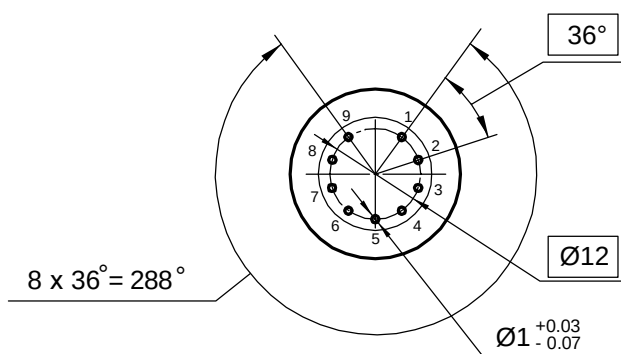
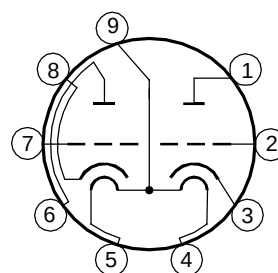


Vacuum tube 12DW7EH is a miniature twin triode with equipotential cathodes, in which the first triode is a voltage amplifier, and the second triode is a phase inverter, designed to amplify low frequency voltage in radio engineering devices.

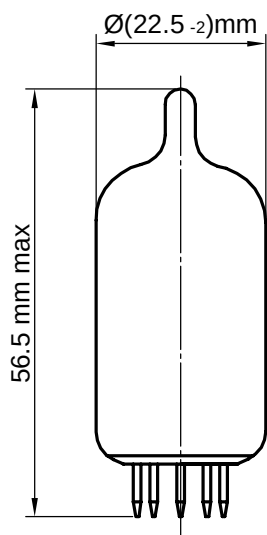
Pin arrangement



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

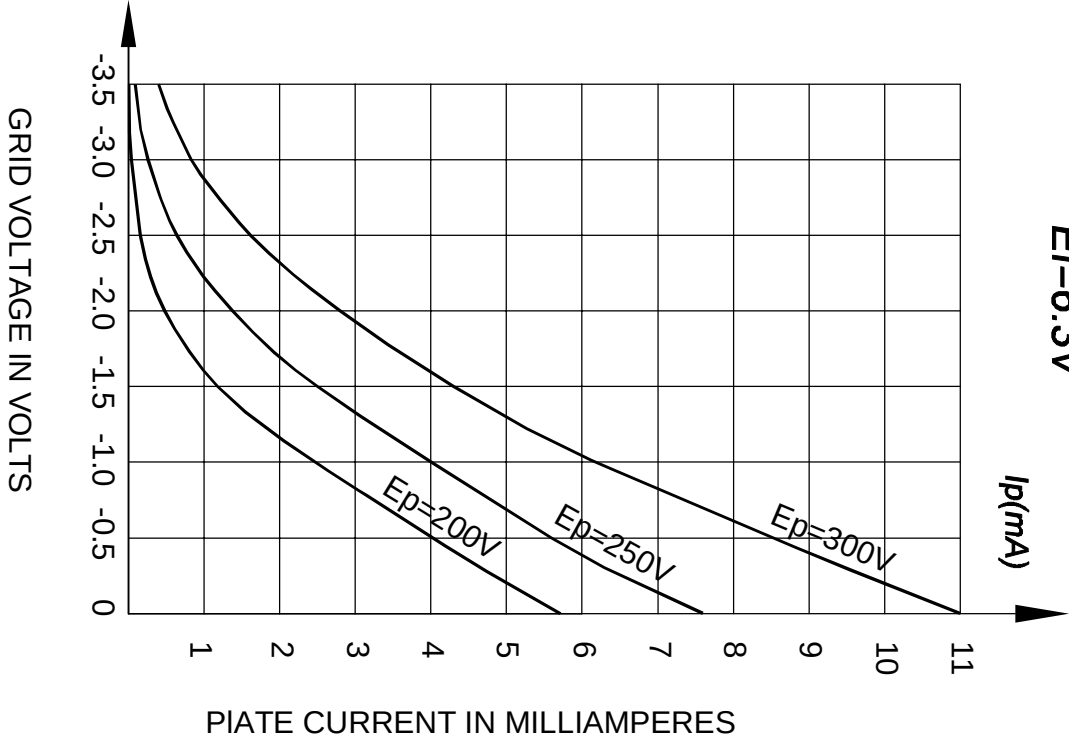
Parameters, conditions and units	Nominal	
	min	max
Heater current, mA at: filament voltage 6.3 V at: filament voltage 12.6 V	300 150	350 175
First triodes grid reverse current, μA , (at: filament voltage 6.3 V or 12.6 V, plate voltage 250 V, grid voltage minus 2.0 V, resistance in grid circuit 1.0 M Ω)	—	0.2
Second triodes grid reverse current, μA , (at: filament voltage 6.3 V or 12.6 V, plate voltage 250 V, grid voltage minus 8.5 V, resistance in grid circuit 0.25 M Ω)	—	0.2
First triode 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	2.0
Second triode plate current, mA, (at: filament voltage 6.3 V or 12.6 V, plate voltage 250 V, grid voltage minus 8.5 V)	7.8	13.5
First triode plate current at the beginning of the characteristic, μA (at: filament voltage 6.3 V or 12.6 V, plate voltage 250 V, grid voltage minus 4.0 V)	—	35
Second triode plate current at the beginning of the characteristic, μA (at: filament voltage 6.3 V or 12.6 V, plate voltage 250 V, grid voltage minus 24.0 V)	—	100
First triode 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	—
Second triode slope of characteristic, mA/V (at: filament voltage 6.3 V or 12.6 V, plate voltage 250 V, grid voltage minus 8.5 V)	1.75	3.0
First triode amplification factor (at: filament voltage 6.3 V or 12.6 V, plate voltage 250 V, grid voltage minus 2.0 V)	75	—
Second triode amplification factor (at: filament voltage 6.3 V or 12.6 V, plate voltage 250 V, grid voltage minus 8.5 V)	13	—
Cathode - heater insulation resistance, M Ω (at: filament voltage 6.3 V or 12.6 V, cathode -heater voltage ± 200 V)	20	—

Limiting Values

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	—	± 200
First triode cathode current, mA	—	9
Second triode cathode current, mA	—	22
Power dissipation at the plate of first triode, W		1.2
Power dissipation at the plate of second triode, W		3.3
Grid circuit resistance for first triode, M Ω fixed bias self - bias	— —	1.0 2.2
Grid circuit resistance for second triode, M Ω fixed bias self - bias	— —	0.25 1.0

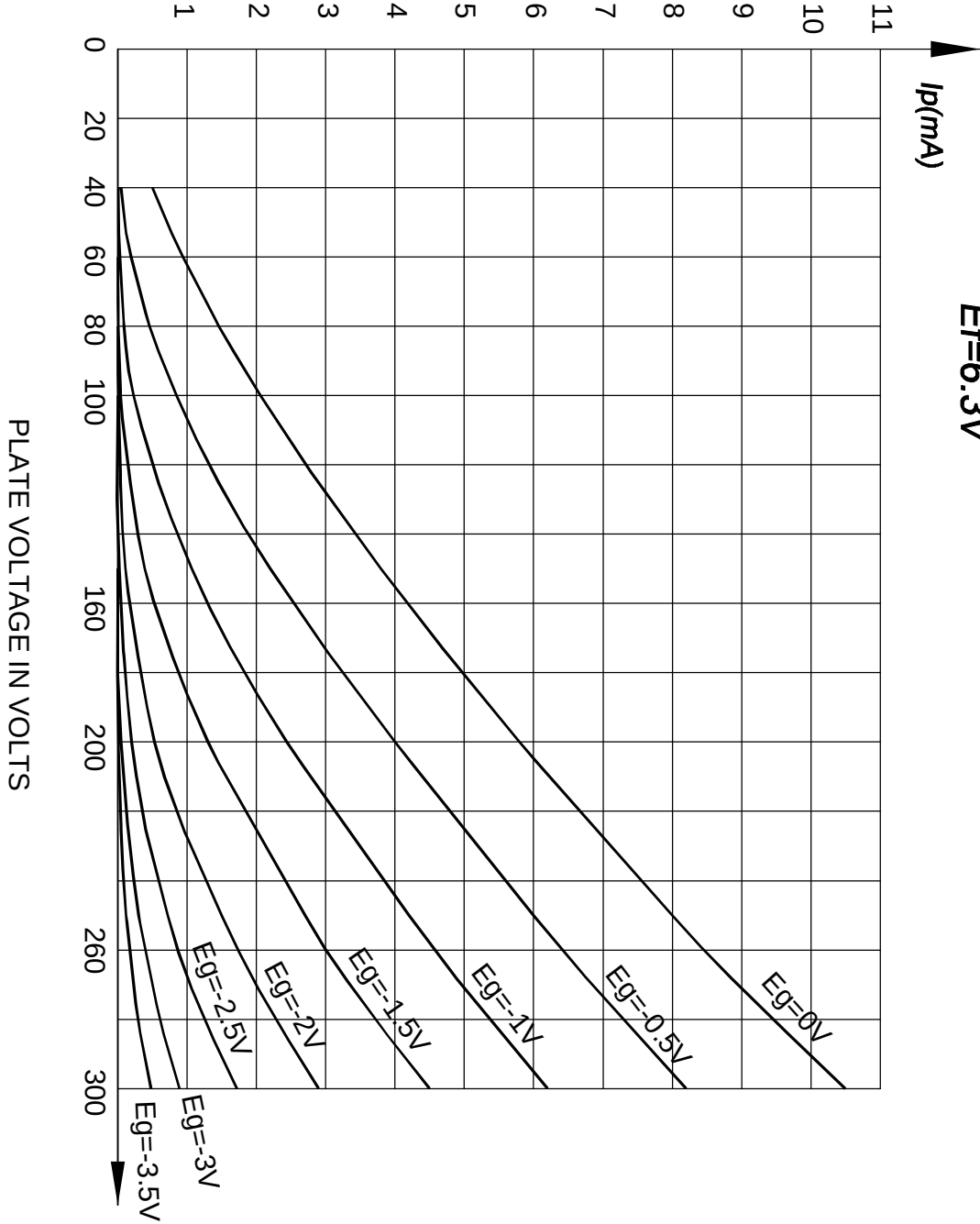
$I_p = f(E_g)$

$E_f = 6.3V$

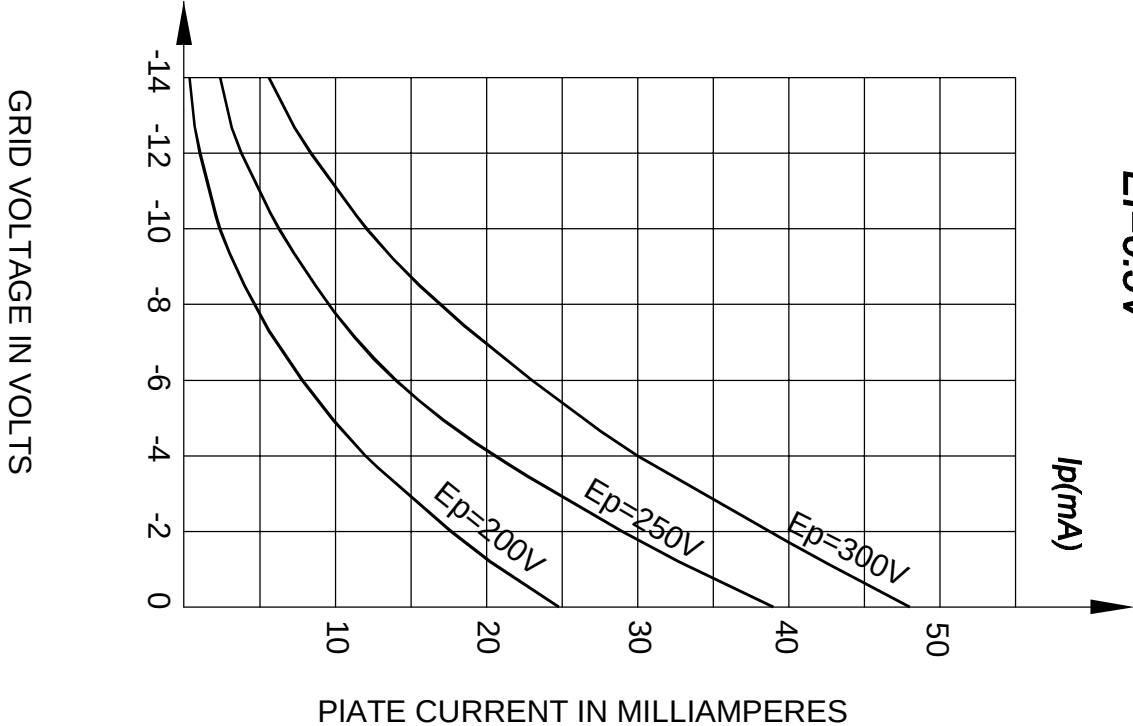


$I_p = f(E_p)$

$E_f = 6.3V$



$I_p = f(E_g)$
 $E_f = 6.3V$



$I_p = f(E_p)$
 $E_f = 6.3V$

