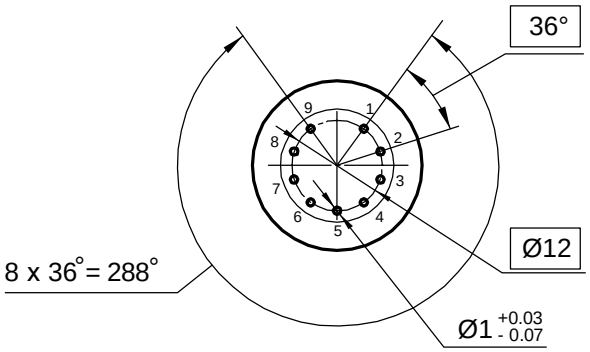
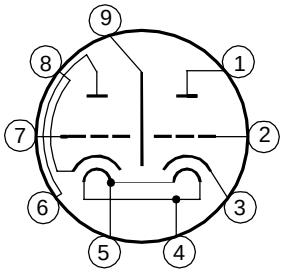
Vacuum tube 6N1P is a miniature twin triode with equipotential cathodes, designed to amplify low freguency voltage in the output stages of HI-FI audio.

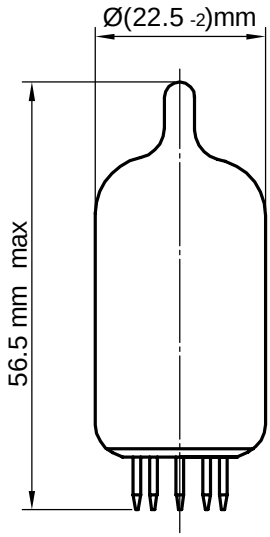
Pin arrangement



Electrode -to - lead connection diagram



Dimensions



Lead designation	Name of electrode
1	First triode plate
2	First triode grid
3	First triode cathode
4, 5	Heater
6	Second triode plate
7	Second triode grid
8	Second triode cathode
9	Screen

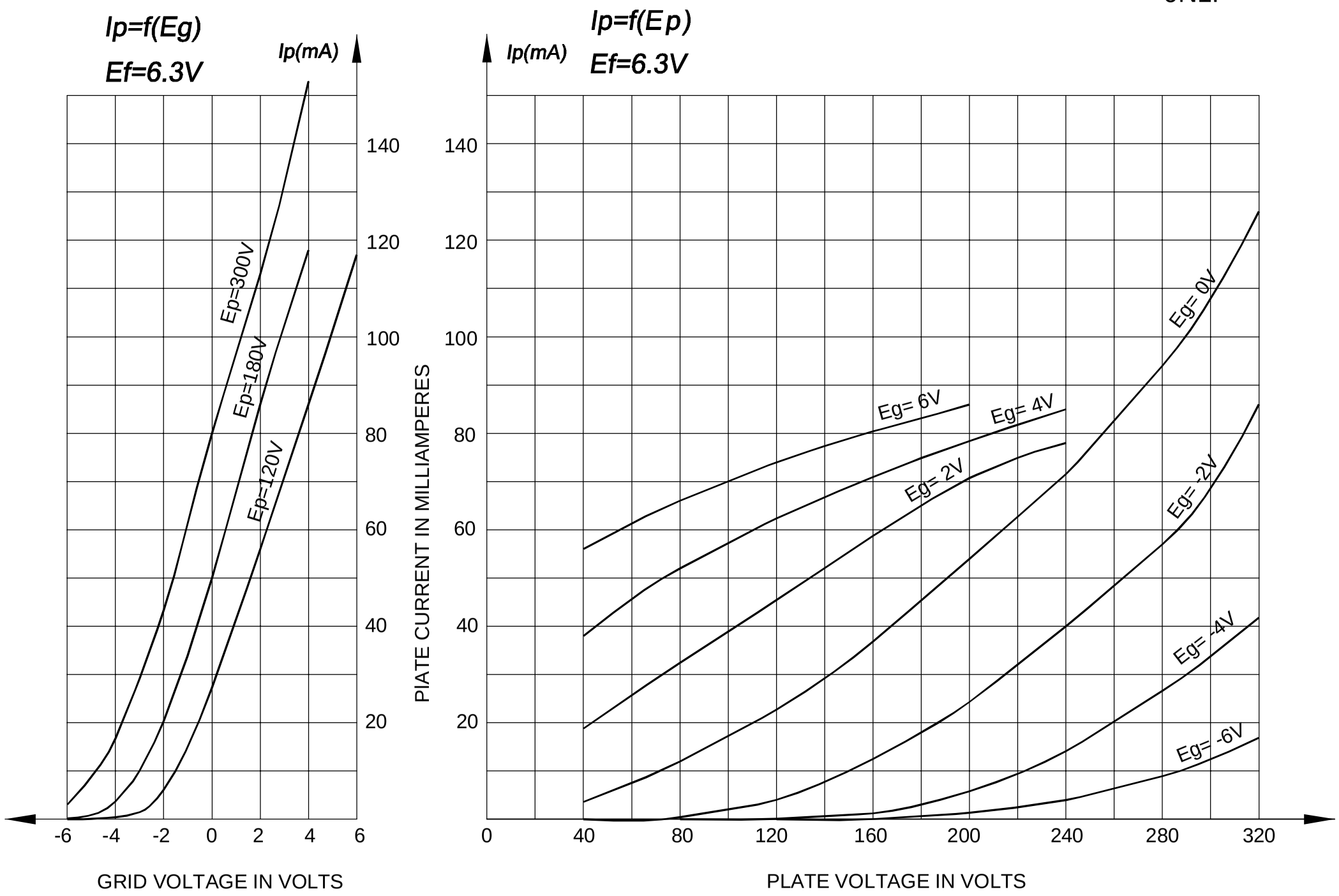
Electrical parameters

Parameters, conditions and units	Nominal	
	min	max
Heater current,mA	550	650
Grid reverse current, μA , (at: filament voltage 6.3 V, plate voltage 250 V, cathode circuit resistance 600 Ω) resistance in grid circuit 1 M Ω)	—	0.2
Plate current, mA, (at: filament voltage 6.3 V, plate voltage 250 V, cathode circuit resistance 600 Ω)	6.0	9.0
Plate current at the beginning of the characteristic, μA (at: filament voltage 6.3 V, plate voltage 250 V, grid voltage minus 15 V)	—	10
Slope of characteristic, mA/V (at: filament voltage 6.3 V, plate voltage 250 V, cathode circuit resistance 600 Ω)	4.0	5.4
Cathode - heater insulation resistance, M Ω (at: filament voltage 6.3 V, cathode -heater voltage ± 250 V)	20	—
Amplification factor (at: filament voltage 6.3 V, plate voltage 250 V, cathode circuit resistance 600 Ω)	28	42

Limiting Values

Parameters, units	Nominal	
	min	max
Filament voltage, V	6	6.6
Plate voltage, V	—	250
Cathode - heater voltage: positive polarity at the heater, V negative polarity at the heater, V		 120 250
Cathode current, mA	—	25
Power dissipation at the plate of each triode, W	—	2.2
Grid circuit resistance for each of the triodes, M Ω	—	0.5
Temperature at the most heated part of the envelope, K°	—	418

6N1P


Ip=f(Eg)
Ef=6.3V
Ip(mA)
Ep=300V
Ep=180V
Ep=120V
140
120
100
80
60
40
20
-6
-4
-2
0
2
4
6
GRID VOLTAGE IN VOLTS
Ip=f(Ep)
Ef=6.3V
Ip(mA)
PIATE CURRENT IN MILLIAMPERES
Eg= 6V
Eg= 4V
Eg= 2V
Eg= 0V
Eg= -2V
Eg= -4V
Eg= -6V
0
40
80
120
160
200
240
280
320
PLATE VOLTAGE IN VOLTS