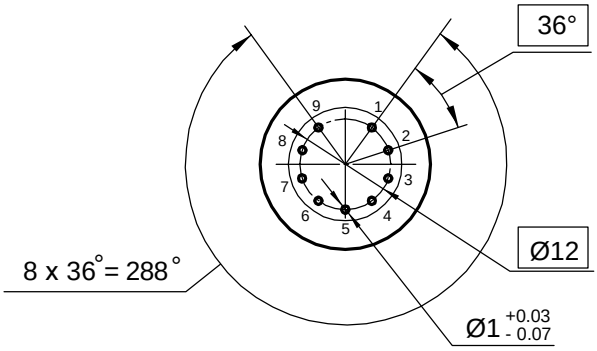
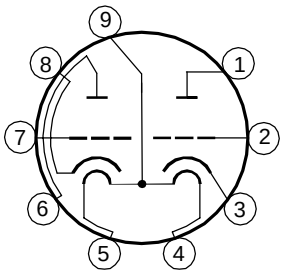
Vacuum tube 12AY7EH/6072 A is a miniature twin triode with equipotential cathodes, designed to amplify low frequency voltage in radio engineering devices.

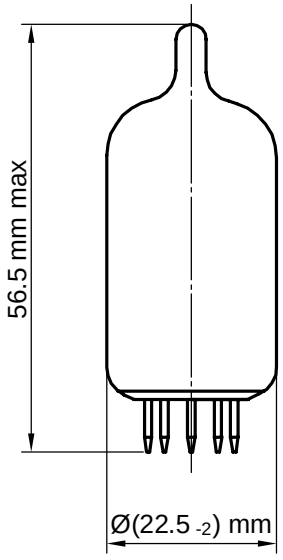
Pin arrangement



Electrode -to - lead connection diagram



Dimensions



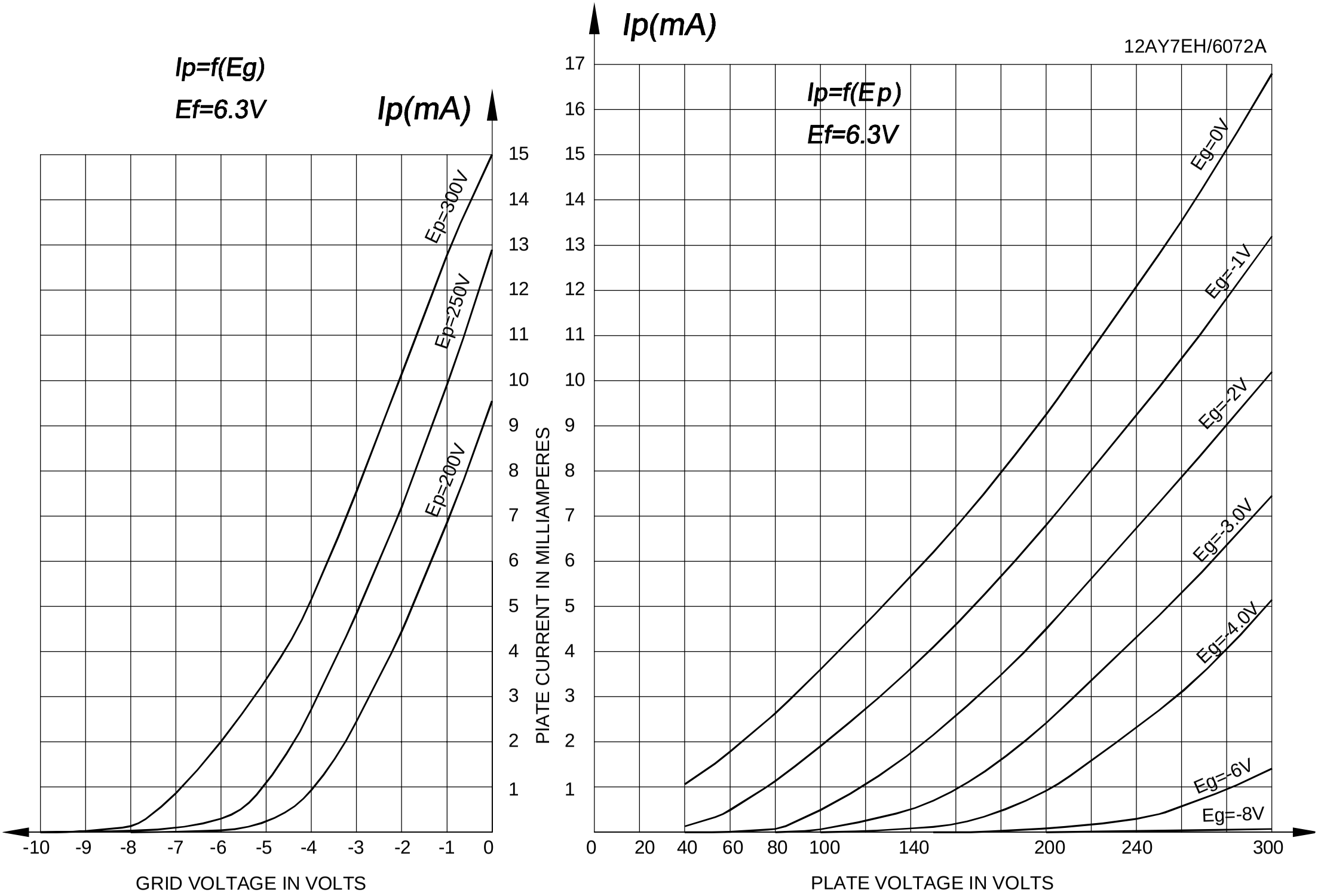
Lead designation	Name of electrode
1	Second triode plate
2	Second triode grid
3	Second triode cathode
4, 5, 9	Heater
6	First triode plate
7	First triode grid
8	First triode cathode

Electrical parameters

Parameters, conditions and units	Nominal	
	min	max
Heater current,mA at: filament voltage 6.3 V at: filament voltage 12.6 V	 340 170	 370 185
Grid reverse current, µA , (at: filament voltage 6.3 V or 12.6 V, plate voltage 250 V, grid voltage minus 4.0 V, resistance in grid circuit 1.0 MΩ)	—	0.2
Plate current, mA, (at: filament voltage 6.3 V or 12.6 V, plate voltage 250 V, grid voltage minus 4.0 V)	2.2	3.75
First and second triodes plate current difference, % (at: filament voltage 6.3 V or 12.6 V, plate voltage 250 V, grid voltage minus 4.0 V)	—	± 40
Slope of characteristic, mA/V (at: filament voltage 6.3 V or 12.6 V, plate voltage 250 V, grid voltage minus 4.0 V)	1.3	2.1
Amplification factor (at: filament voltage 6.3 V or 12.6 V, plate voltage 250 V, grid voltage minus 4.0 V)	35	—
Cathode - heater insulation resistance, MΩ (at: filament voltage 6.3 V or 12.6 V, cathode - heater voltage ± 100 V)	10	—
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 11.0 V)	—	30

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	—	300
Cathode - heater voltage, V	—	± 100
Power dissipation at the plate of each triode, W	—	1.5
Cathode current, mA	—	10
Grid circuit resistance for each of the triodes, MΩ fixed bias self - bias	 — —	 1.0 2.0


Ip=f(Eg)
Ef=6.3V
Ip(mA)
Ep=300V
Ep=250V
Ep=200V
-10 -9 -8 -7 -6 -5 -4 -3 -2 -1 0
GRID VOLTAGE IN VOLTS
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15
PIATE CURRENT IN MILLIAMPERES
Ip(mA)
12AY7EH/6072A
Ip=f(Ep)
Ef=6.3V
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17
Eg=0V
Eg=-1V
Eg=-2V
Eg=-3.0V
Eg=-4.0V
Eg=-6V
Eg=-8V
0 20 40 60 80 100 140 200 240 300
PLATE VOLTAGE IN VOLTS