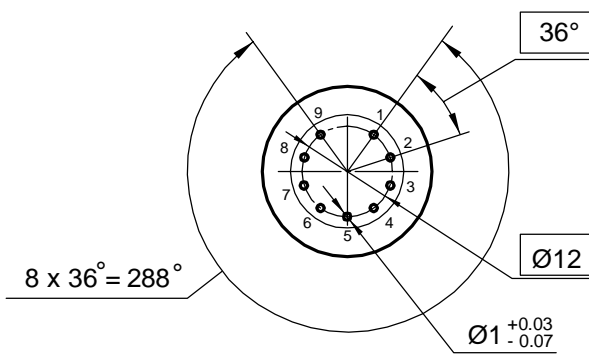
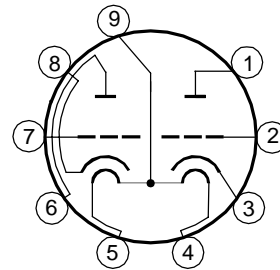


Vacuum tube 12AT7EH gold is a miniature twin triode with equipotential cathodes, designed to amplify low frequency voltage in radio engineering devices.

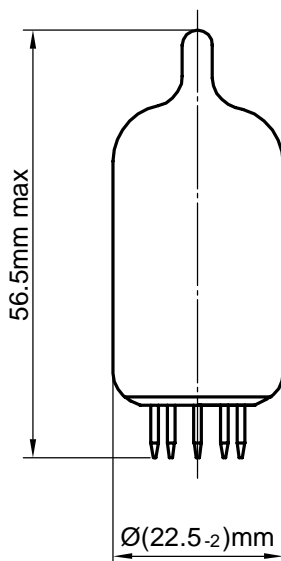
Pin arrangement



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 | 350 175 | 390 195 |
| Grid back 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 0.25 M Ω) | — | 0.5 |
| Plate current, mA, (at: filament voltage 6.3 V or 12.6 V, plate voltage 250 V, grid voltage minus 2.0 V) | 7.0 | 14.0 |
| First and second triodes plate current difference, % (at: filament voltage 6.3 V or 12.6 V, plate voltage 250 V, grid voltage minus 2.0 V) | — | ± 40 |
| Slope of characteristic, mA/V (at: filament voltage 6.3 V or 12.6 V, plate voltage 250 V, grid voltage minus 2.0 V) | 4.3 | 6.5 |
| Amplification factor (at: filament voltage 6.3 V or 12.6 V, plate voltage 250 V, grid voltage minus 2.0 V) | 45 | — |
| Cathode - heater insulation resistance, M Ω (at: filament voltage 6.3 V or 12.6 V, cathode - heater voltage ± 200 V) | 20 | — |
| 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 12.0 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 | — | 330 |
| Cathode - heater voltage, V | — | ± 200 |
| Power dissipation at the plate of each triode, W | — | 3.25 |
| Cathode current, mA | — | 18 |
| Grid circuit resistance for each of the triodes, M Ω fixed bias self - bias | — — | 0.25 1.0 |

$I_p = f(E_g)$

$E_f = 6.3V$

$I_p (mA)$

$I_p (mA)$

$I_p = f(E_p)$

$E_f = 6.3V$

12AT7EH gold

