The 6DG7 is a remote cut-off pentode of the 9-pin miniature type, intended for use as R.F. on I.F. amplifier, and particularly in the gain-controlled stages of auto-radio amplifiers. This tube has a very low grid plate capacitance and a high transconductance.

**Electrical:**

Heater, for unipotential cathode:
- Voltage: 6.3 volts
- Current: 0.3 ampère.

Direct interelectrode capacitances:
- Grid No. 1 to plate: 0.0018 μF. max.
- Input: 5.5 μF.
- Output: 5.0 μF.

**Mechanical:**

- Mounting position: any
- Maximum overall length: 2-3/6 "
- Maximum seated length: 1-15/16 "
- Maximum diameter: 7/8 "
- Bulb: T-6 1/2
- Base: Small button noval (JETEC No. E9-1)

Basing designation for BOTTOM VIEW: JETEC 9BA
- Pin 1 - Internal shield
- Pin 2 - Grid No. 1
- Pin 3 - Cathode
- Pin 4 - Heater
- Pin 5 - Heater
- Pin 6 - Internal shield
- Pin 7 - Plate
- Pin 8 - Grid No. 2
- Pin 9 - Grid No. 3

from JETEC release #1966, July 1, 1957
sponsor: Compagnie des Lampes
CLASSE A1 AMPLIFIER

Maximum Ratings.
(Design center value)

Plate voltage 300 volts max.
Grid No 2 voltage 125 volts max.
Grid No 2 (supply) voltage 300 volts max.
Plate dissipation 3 watts max.
Grid No 2 dissipation 0.6 watt max.
Grid No 1 Voltage:
  Negative Bias value 50 volts max.
  Positive Bias value 0 volt max.
Peak-heater cathode voltage:
  Heater negative with respect to cathode 90 volts max.
  Heater positive with respect to cathode 90 volts max.

Typical operation and characteristics.

Plate voltage 100 250 volts
Grid No 3 connected to cathode at socket.
Grid No 2 voltage 100 100 volts.
Cathode bias resistor 68 68 ohms
Plate resistance 0.25 1 Megohm.
Transconductance 4.500 4.400 umhos.
Plate current 10.8 11 mA.
Grid No 2 current 4.4 4.2 mA.
Grid No 1 bias (approx.) for transconductance of 40 umhos - 20 - 20 volts.
AVERAGE PLATE CHARACTERISTICS.

$E_f = 6.3$ v.

Grid N°2 Voltage
$= 100$ volts

Grid N°3 Voltage
$= 0$ volt

Plate or Grid N°2 current (mA)

Plate voltage (volts)
AVERAGE CHARACTERISTICS

Plate voltage = 250V.
Grid No. 3
voltage = 0V.

Grid No. 2, supply voltage = 250V, through 33000Ω.
Grid No. 2, voltage = 105V.
Grid No. 1 bias (volts)

Plate current (mA)
Plate voltage
= 250 volts
Grid N°3 = 0 Volt

Grid N°2 supply = 250V through 33kohm, bias -30V

Grid N°2 supply = 100V, bias -15V

Grid N°2 supply = 50V, bias -10V

AVERAGE CHARACTERISTICS
AVERAGE CHARACTERISTICS

Plate voltage
= 250 V.
Grid N°3 voltage = 0 V.

Grid N°2 supply voltage = 250 V, Throat 3100, 4000, 5000, 6000, 7000, 8000 V.

Conduction (µmhos)

Grid N°1 bias (volts)