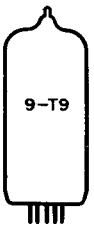
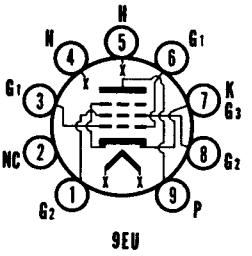


SYLVANIA TYPE 6GC5

BEAM POWER PENTODE



The 9T9 design utilizes a T-9 (1⅛" Dia.) bulb based to fit a standard 9-pin miniature socket. Advantages of the 9T9 include an increase in the heat dissipation safety margin, as compared to 9-pin miniature tubes employing T-6½ (⅝" Dia.) bulbs.

MECHANICAL DATA

Bulb	Special, T-9
Base	9-Pin, Same as E9-1, except Bulb Dia. (E9-68)
Outline	9-71
Basing	9EU
Cathode	Coated Unipotential
Mounting Position	Any

ELECTRICAL DATA

HEATER CHARACTERISTICS AND RATINGS

Characteristics

Heater Voltage[1]	6.3 Volts
Heater Current[2]	1.2 Ma
Ratings (Design Maximum Values)	
Heater Voltage[3]	6.3 ± 0.6 Volts
Maximum Heater-Cathode Voltage	
Heater Negative with Respect to Cathode	
Total D C and Peak	200 Volts Max.
Heater Positive with Respect to Cathode	
D C	100 Volts Max.
Total D C and Peak	200 Volts Max.

DIRECT INTERELECTRODE CAPACITANCES (Approx.)

Grid No. 1 to Plate	0.9 μμf
Input: g1 to (h + k, g3 + g2)	18 μμf
Output: p to (h + k, g3 + g2)	7 μμf

RATINGS (Design Maximum Values)

Plate Voltage	220 Volts Max.
Grid No. 2 Voltage	140 Volts Max.
Plate Dissipation	12 Watts Max.
Grid No. 2 Dissipation	1.4 Watts Max.
Grid No. 1 Circuit Resistance	
Fixed Bias	0.1 Megohm Max.
Cathode Bias	0.5 Megohm Max.

CHARACTERISTICS AND TYPICAL OPERATIONS

Class A1 Amplifier (Single Tube)

Plate Voltage	110	200 Volts
Grid No. 2 Voltage	110	125 Volts
Grid No. 1 Voltage	−7.5	— Volts
Cathode Resistor	—	180 Ohms
Peak AF Grid No. 1 Voltage	7.5	8.5 Volts
Zero Signal Plate Current	49	46 Ma
Max. Signal Plate Current	50	47 Ma
Zero Signal Grid No. 2 Current	4	2.2 Ma
Max. Signal Grid No. 2 Current	10	8.5 Ma
Transconductance	8000	8000 μmhos
Plate Resistance (approx.)	13,000	28,000 Ohms
Load Resistance	2000	4000 Ohms
Max. Signal Power Output	2.1	3.8 Watts
Total Harmonic Distortion (approx.)	10	10 Percent

NOTES:

1. For parallel operation of heaters, equipment should be designed that at normal supply voltage bogey tubes will operate at this value of heater voltage.
2. The bogey value of current is obtained when operating the heater at the specified 6.3 volts.
3. Heater voltage supply variations shall be restricted to maintain heater voltage within the specified tolerance.

APPLICATION

The Sylvania Type 6GC5, beam power pentode, features high power sensitivity as an audio power amplifier. In Class A1 operation, it can deliver 2.1 watts of power with a B+ voltage of only 110 volts.