

Cunningham
Radiotron

RCA-6C5

Detector Amplifier Triode

The 6C5 is a three-electrode tube of the metal type recommended for use as a detector, amplifier, or oscillator. This tube has a high mutual conductance together with a comparatively high amplification factor.

TENTATIVE CHARACTERISTICS

HEATER VOLTAGE (A.C. or D.C.)	6.3	Volts
HEATER CURRENT	0.3	Ampere
PLATE VOLTAGE	250 <i>max.</i>	Volts
GRID VOLTAGE ^o	-8	Volts
PLATE CURRENT	8	Milliamperes
PLATE RESISTANCE	10000	Ohms
AMPLIFICATION FACTOR	20	
MUTUAL CONDUCTANCE	2000	Micromhos
GRID-PLATE CAPACITANCE *	1.8	μ f
GRID-CATHODE CAPACITANCE *	4	μ f
PLATE-CATHODE CAPACITANCE *	13	μ f
MAXIMUM OVERALL LENGTH	2-5/8"	
MAXIMUM DIAMETER	1-5/16"	
BASE	Small Octal 6-Pin	

^o If a grid-coupling resistor is used, its maximum value should not exceed 1.0 megohm.

* With shell connected to cathode.

INSTALLATION

The base pins of the 6C5 fit the six-contact octal-base socket (or the universal eight-contact socket) which may be installed to hold the tube in any position.

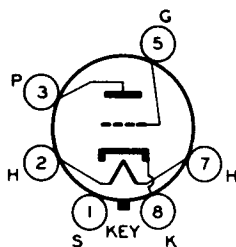
For heater operation and cathode connection, refer to INSTALLATION for type 6A8.

APPLICATION

As an amplifier, the 6C5 is applicable to radio-frequency or audio-frequency circuits. Recommended operating conditions for service using transformer coupling are given under CHARACTERISTICS. For circuits utilizing resistance coupling, typical operating conditions are as follows:

PLATE-SUPPLY VOLTAGE	250	Volts
GRID-BIAS VOLTAGE (Approx.)	-5	Volts
PLATE LOAD RESISTOR	50000 to 100000	Ohms
PLATE CURRENT	1 to 2	Milliamperes
VOLTAGE AMPLIFICATION	14	
VOLTAGE OUTPUT (5% second harmonic)	42	Volts (RMS)

As a detector, the 6C5 may be of the grid-leak and condenser or grid-bias type. The plate voltage for the grid leak and condenser method should be 45 to 100 volts. A grid leak from 0.1 to 1.0 megohm with a grid condenser of 0.00005 to 0.0005 μf is satisfactory. For the grid-bias method of detection, a plate-supply voltage of 250 volts may be used together with a negative grid-bias voltage of approximately 17 volts. The plate current should be adjusted to 0.2 milliampere with no input signal voltage. The grid-bias voltage may be supplied from the voltage drop in a resistor between cathode and ground.



BOTTOM VIEW

