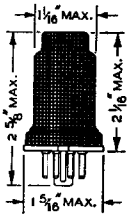
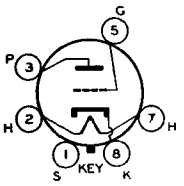


RCA-6C5

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 transconductance together with a comparatively high amplification factor.

CHARACTERISTICS

HEATER VOLTAGE (A. C. or D. C.)	6.3	Volts
HEATER CURRENT	0.3	Ampere
GRID-PLATE CAPACITANCE*	1.8	μμf
GRID-CATHODE CAPACITANCE*	4	μμf
PLATE-CATHODE CAPACITANCE*	13	μμf
BASE	Small Wafer Octal 6-Pin	

* With shell connected to cathode.

As Class A_1 Amplifier

	Transformer-Coupled	*Resistance-Coupled*	
PLATE VOLTAGE	250 *max.*	250°	Volts
GRID VOLTAGE°°	−8	−5 *approx.*	Volts
PLATE CURRENT	8	1 to 2	Milliamperes
PLATE RESISTANCE	10000	—	Ohms
AMPLIFICATION FACTOR	20	—	
TRANSCONDUCTANCE	2000	—	Micromhos
VOLTAGE OUTPUT (5 per cent second harmonic)	—	42 *RMS*	Volts
VOLTAGE AMPLIFICATION	—	14	

° This is a plate-supply voltage value.
°° If a grid-coupling resistor is used, its maximum value should not exceed 1.0 megohm.

INSTALLATION

The base pins of the 6C5 fit the standard octal 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 and resistance coupling are given under CHARACTERISTICS.

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. A plate family for this type is given on page 61.

Operating conditions as a resistance-coupled A-F amplifier are given in the Resistance-Coupled A-F Amplifier Section.

6C5

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1	70	1937
2	FP	1999.10.10