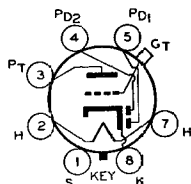
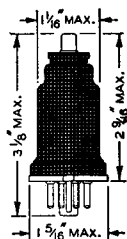


# RCA-6R7

## DUPLEX-DIODE TRIODE



The 6R7 is an All-Metal tube consisting of two diodes and a triode in a single envelope. It is for use as a combined detector, amplifier, and automatic-volume-control tube in

radio receivers designed for its characteristics. For diode-detector considerations refer to page 26.

### CHARACTERISTICS

HEATER VOLTAGE (A. C. or D. C.).....	6.3	Volts
HEATER CURRENT .....	0.3	Ampere
GRID-PLATE CAPACITANCE .....	2.5	$\mu\mu\text{f}$
GRID-CATHODE CAPACITANCE .....	5.5	$\mu\mu\text{f}$
PLATE-CATHODE CAPACITANCE .....	4.0	$\mu\mu\text{f}$
CAP .....		Miniature
BASE .....		Small Wafer Octal 7-Pin

### Triode Unit—As Class A Amplifier

PLATE VOLTAGE .....	250 max.	Volts
GRID VOLTAGE .....	-9	Volts
AMPLIFICATION FACTOR .....	16	
PLATE RESISTANCE .....	8500	Ohms
TRANSCONDUCTANCE .....	1900	Micromhos
PLATE CURRENT .....	9.5	Milliamperes
LOAD RESISTANCE .....	10000	Ohms
UNDISTORTED POWER OUTPUT.....	280	Milliwatts

### Diode Units

The two diode plates are placed around a cathode, the sleeve of which is common to the triode unit. Each diode plate has its own base pin. Operation curves for the diode units are given under type 6B7.

### INSTALLATION AND APPLICATION

The base pins of the 6R7 fit the standard octal socket which may be installed to hold the tube in any position. Heater and cathode considerations are the same as those for type 6A8.

As a transformer-coupled amplifier, the triode unit of the 6R7 may be employed in conventional circuit arrangements. Operating conditions are shown under CHARACTERISTICS.

As a resistance-coupled amplifier, the triode unit may be used under conditions given in the Resistance-Coupled Amplifier Section.

Grid bias for the triode unit of the 6R7 may be obtained from a fixed source, such as a fixed-voltage tap on the d-c power supply or from a cathode-bias resistor. It should not be obtained by the diode-biasing method because of the probability of plate-current cut-off, even with relatively small signal voltages applied to the diode circuit.

A family of plate characteristic curves is given on page 98.