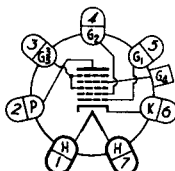


HEPTODE
PENTAGRID CONVERTER
Heater Type Glass Bulb

The 2A7 is a pentagrid type converter tube designed for service as a combined oscillator and mixer in a-c operated superheterodyne receivers.

RATINGS

Heater Voltage (a-c or d-c)	2.5	volts
Heater Current	0.8	amp
Max. Plate Voltage	250	volts
Max. Screen Voltage	100	volts
Max. Grid #2 Voltage	200	volts
Max. Grid #2 Supply	250†	volts
Min. Grid #4 Bias	-3	volts
Max. Cathode Current	14	ma



BOTTOM VIEW OF SOCKET

DIRECT INTERELECTRODE CAPACITANCES

Grid #4 to Plate	0.3 *	μuf
Grid #4 to Grid #2	0.15*	μuf
Grid #4 to Grid #1	0.15*	μuf
Grid #1 to Grid #2	1.0	μuf
Grid #4 to all other Elements (R-F Input)	8.5	μuf
Grid #1 to all other Elements (Osc. Input)	7	μuf
Grid #2 to all other Elements (Osc. Output)	5.5	μuf
Plate to all other Elements (Mixer Output)	9	μuf

FREQUENCY CONVERTER - SUPERHETERODYNE CIRCUIT

Plate Voltage	100	250	volts
Screen (Grids #3 and #5) Voltage	50	100	volts
Anode Grid (#2) Voltage	100		volts
Anode Grid Supply Voltage		250†	volts
Control Grid (#4) Bias	-1.5	-3	volts
Oscillator Grid Resistor	50000	50000	ohms
Plate Resistance	0.6	0.3	megohm
Conversion Transconductance	360	550	μmhos
Plate Current	1.1	3.5	ma
Screen Current	1.3	2.7	ma
Anode Grid Current	2.0	4.0	ma
Oscillator Grid Current	0.25	0.4	ma
Control Grid Bias (approximate)	-20	-45	volts

(For Conversion Transconductance = 2 μmhos)

The voltage between heater and cathode should be kept as low as possible where they are not directly connected.

†Applied through a 20000 ohm series resistor, by-passed by a 0.1 μf condenser.

*With tube shield.

For characteristic curves refer to the type 6A7. The characteristics of the 2A7 are the same as those of the 6A7 except for the heater rating.