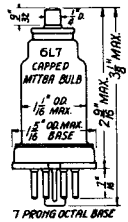
6L7
6L7G

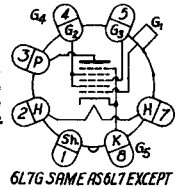
RAYTHEON

6L7
6L7G



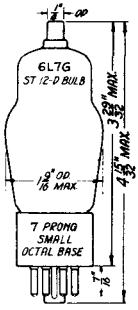
HEPTODE
PENTAGRID MIXER or AMPLIFIER
Heater Type
Metal Bulb-6L7 Glass Bulb-6L7G

The 6L7 is a pentagrid type tube designed for service as a mixer in storage battery or a-c operated superheterodyne receivers using a separate oscillator.



RATINGS

Heater Voltage	6.3	volts
Heater Current	0.3	amp
Max. Plate Voltage	250	volts



DIRECT INTERELECTRODE CAPACITANCES

	6L7*	6L7G**	
Grid #1 to Plate	0.0005	0.003 max.	µµf
Grid #1 to Grid #3	0.12	0.15	µµf
Grid #3 to Plate	0.025	0.25	µµf
Grid #1 to all other Elements	8.5	5.8	µµf
Grid #3 to all other Elements	11.5	11.5	µµf
Plate to all other Elements	12.5	9	µµf

AMPLIFIER - CLASS A

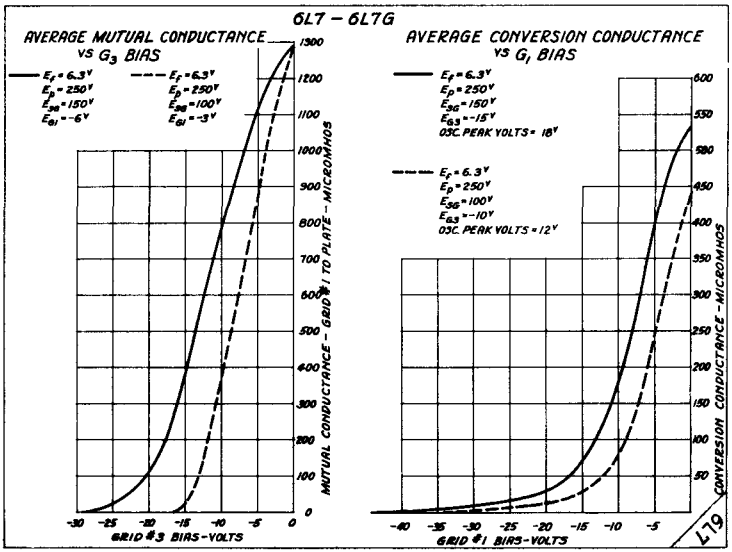
Plate Voltage	250		volts
Screen (Grids #2 & #4) Voltage	100	max.	volts
Control Grid (#1) Bias	-3	min.	volts
Control Grid (#3) Bias	-3		volts
Amplification Factor	880		
Plate Resistance	0.8		megohm
Transconductance	1100		µmhos
Plate Current	5.3		ma
Screen Current	6.5		ma
Transconductance	5		µmhos

(Grid #1 Bias = -15 volts; Grid #3 Bias = -15 volts)

MIXER - SUPERHETERODYNE CIRCUIT

Plate Voltage	250	250		volts
Screen (Grids #2 & #4) Voltage	100	150	max.	volts
Signal Grid (#1) Bias	-3	-6	min.	volts
Oscillator Grid (#3) Bias	-10	-15		volts
Oscillator Peak Voltage (Grid #3)	12	18		volts
Plate Resistance	Greater than 1			megohm
Conversion Conductance	350	350		µmhos
Plate Current	2.4	3.3		ma
Screen Current	7.2	9.2		ma
Signal Grid (#1) Bias	-30	-45		volts

(Conversion Conductance = 5 µmhos)

* With Shell connected to cathode.
**With tube shield connected to cathode

The D-C resistance in the oscillator grid (#3) circuit should not exceed 50000 ohms.
The voltage between heater and cathode should be as low as possible where they are not directly connected.