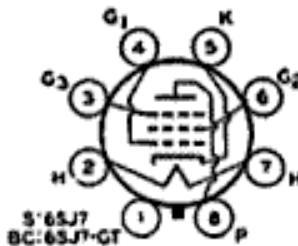


SHARP-CUTOFF PENTODE



Metal type 6SJ7 and glass-octal type 6SJ7-GT are used as rf amplifiers and biased detectors. As a detector, either type is capable of delivering large audio-frequency output voltage with relatively small input voltage.

6SJ7
6SJ7-GT

HEATER VOLTAGE (AC/DC).....	6.3	volts
HEATER CURRENT.....	0.3	ampere
DIRECT INTERELECTRODE CAPACITANCES*		
Pentode Connection:		
Grid No.1 to Plate.....	0.005 max	0.005 max μ f
Input.....	6.0	7.0 μ f
Output.....	7.0	7.0 μ f
Triode Connection:†		
Grid No.1 to Plate.....	2.8	2.8 μ f
Input.....	3.4	3.4 μ f
Output.....	11	11 μ f

* With shell or external shield connected to cathode.
† With grids No.2 and No.3 connected to plate.

CLASS A₁ AMPLIFIER

Maximum Ratings:

	Triode Connection	Pentode Connection	
PLATE VOLTAGE.....	250 max	300 max	volts
GRID-NO.2 (SCREEN) VOLTAGE.....	-	125 max	volts
GRID-NO.2 SUPPLY VOLTAGE.....	-	300 max	volts
GRID-NO.1 (CONTROL-GRID) VOLTAGE, Positive Bias Value....	0 max	0 max	volts
PLATE DISSIPATION.....	2.5 max	2.5 max	watts
GRID-NO.2 INPUT.....	-	0.70 max	watt
PEAK HEATER-CATHODE VOLTAGE:			
Heater negative with respect to cathode.....	90 max	90 max	volts
Heater positive with respect to cathode.....	90 max	90 max	volts

Typical Operations:

	Triode Connection		Pentode Connection		
Plate Voltage.....	180	250	100	250	volts
Grid-No.2 Voltage.....	*	*	100	100	volts
Grid-No.1 Voltage.....	-6	-8.5	-9	-9	volts
Grid No.3 (Suppressor).....	*	*	Connected to cathode at socket		
Amplification Factor.....	19	19	-	-	
Plate Resistance.....	8250	7600	700000	†	ohms
Transconductance.....	2300	2500	1575	1650	μ mhos
Grid-No.1 Bias for plate current of 10 μ A.....	-	-	-8	-8	volts
Plate Current.....	6.0	9.2	2.9	3.0	ma
Grid-No.2 Current.....	-	-	0.9	0.8	ma

* Grids No.2 and No.3 connected to plate. † Greater than 1 megohm.

INSTALLATION AND APPLICATION

Types 6SJ7 and 6SJ7-GT require octal socket and may be mounted in any position. Outlines 3 and 24, respectively, OUTLINES SECTION. For heater and cathode considerations, refer to type 6AV6.

As a class A₁ amplifier, the 6SJ7 or 6SJ7-GT may be operated either as a pentode or as a triode, as shown under tabulated data. The grid-No.2 voltage for the 6SJ7 operated as a pentode may be obtained from a potentiometer or bleeder circuit across the B-supply device. Due to the grid-No.2-current characteristics of the 6SJ7, a resistor in series with the high-voltage supply may be employed for obtaining the grid-No.2 voltage, provided the cathode-resistor method of bias control is used. This method, however, is not recommended if the high-voltage B-supply exceeds 300 volts.