6BX7-GT

MEDIUM-MU TWIN TRIODE

GENERAL DATA

Electrical:

Heater, for Unipotential Cathodes:

Voltage	6.3	ac or dc volts
Current	1.5	amp

Direct Interelectrode Capacitances (Approx.):

	Without External Shield	*With External Shield*[o]	
Unit No.1:			
Grid to plate	4.2	4.2	μμf
Grid to cathode and heater	4.4	5.0	μμf
Plate to cathode and heater	1.1	3.4	μμf
Unit No.2:			
Grid to plate	4.0	4.0	μμf
Grid to cathode and heater	4.8	5.0	μμf
Plate to cathode and heater	1.2	3.2	μμf
Grid to grid	0.11	0.10	μμf
Plate to plate	1.5	1.2	μμf

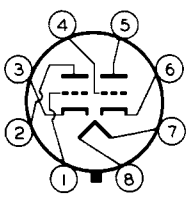
Characteristics, Class A_1 Amplifier (Each Unit):

Plate Voltage	100	250	volts
Grid Voltage	0	–	volts
Cathode Resistor	–	390	ohms
Amplification Factor	–	10	
Plate Resistance (Approx.)	–	1300	ohms
Transconductance	–	7600	μmhos
Plate Current	80	42	ma
Grid Voltage (Approx.) for plate current of 50 μamp	–	-40	volts

Mechanical:

Mounting Position	Any
Maximum Overall Length	3-5/16"
Maximum Seated Length	2-3/4"
Maximum Diameter	1-9/32"
Dimensional Outline	*See General Section*
Bulb	T-9
Base	Short Intermediate-Shell Octal 8-Pin with External Barriers (JETEC No.B8-58)
Basing Designation for BOTTOM VIEW	8BD

Pin 1 – Grid of Unit No.2
Pin 2 – Plate of Unit No.2
Pin 3 – Cathode of Unit No.2
Pin 4 – Grid of Unit No.1



Pin 5 – Plate of Unit No.1
Pin 6 – Cathode of Unit No.1
Pin 7 – Heater
Pin 8 – Heater

[o] With external shield JETEC No.308 connected to cathode of unit under test.

TUBE DIVISION
RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY

6BX7-GT

MEDIUM-MU TWIN TRIODE

VERTICAL DEFLECTION OSCILLATOR♦

Values are for Each Unit

Maximum Ratings, *Design-Center Values:*

For operation in a 525-line, 30-frame system□

DC PLATE VOLTAGE	500 max.	volts
PEAK NEGATIVE-PULSE GRID VOLTAGE	400 max.	volts
CATHODE CURRENT:		
Peak	180 max.	ma
Average	60 max.	ma
PLATE DISSIPATION:		
Either plate	10 max.	watts
Both plates (Both units operating)	12 max.	watts
PEAK HEATER-CATHODE VOLTAGE:		
Heater negative with respect to cathode	200 max.	volts
Heater positive with respect to cathode	200▲max.	volts

Maximum Circuit Values:

Grid-Circuit Resistance	2.2 max.	megohms

VERTICAL DEFLECTION AMPLIFIER♦

Values are for Each Unit

Maximum Ratings, *Design-Center Values Except as Noted:*

For operation in a 525-line, 30-frame system□

DC PLATE VOLTAGE	500 max.	volts
PEAK POSITIVE-PULSE PLATE VOLTAGE# (Absolute maximum)	2000■max.	volts
PEAK NEGATIVE-PULSE GRID VOLTAGE	250 max.	volts
CATHODE CURRENT:		
Peak	180 max.	ma
Average	60 max.	ma
PLATE DISSIPATION:		
Either plate	10 max.	watts
Both plates (Both units operating)	12 max.	watts
PEAK HEATER-CATHODE VOLTAGE:		
Heater negative with respect to cathode	200 max.	volts
Heater positive with respect to cathode	200▲max.	volts

Maximum Circuit Values:

Grid-Circuit Resistance:		
For cathode-bias operation	2.2 max.	megohms

♦ When the 6BX7-GT is operated as a combined vertical deflection amplifier and oscillator, it is recommended that unit No.1 (pins 4, 5, and 6) be used as the oscillator.

□ As described in "Standards of Good Engineering Practice Concerning Television Broadcast Stations", Federal Communications Commission.

▲ The dc component must not exceed 100 volts.

\# This rating is applicable where the duration of the voltage pulse does not exceed 15 per cent of one vertical scanning cycle. In a 525-line, 30-frame system, 15 per cent of one vertical scanning cycle is 2.5 milliseconds.

■ Under no circumstances should this absolute value be exceeded.

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