



6BL7-GT

MEDIUM-MU TWIN TRIODE

6BL7-GT

GENERAL DATA

Electrical:

Heater, for Unipotential Cathodes:

Voltage. 6.3 ac or dc volts

Current. 1.5 amp

Direct Interelectrode

Capacitances:

Without
External
ShieldWith External
Shield No. 308
Tied to Cathode

Unit No. 1:

Grid to Plate. 4.2 4.2 μf Input. 4.4 5.0 μf Output. 1.1 3.4 μf

Unit No. 2:

Grid to Plate. 4.0 4.0 μf Input. 4.8 5.0 μf Output. 1.2 3.2 μf

Grid of Unit No. 1

to Grid of Unit No. 2 0.11 0.10 μf

Plate of Unit No. 1

to Plate of Unit No. 2 1.5 1.2 μf Characteristics, Amplifier Class A₁ (Each Unit):

Plate Voltage. 250 volts

Grid Voltage. -9 volts

Plate Current. 40 ma

Amplification Factor. 15

Plate Resistance. 2150 ohms

Transconductance. 6200 μmhos ←

Grid-No. 1 Bias (Approx.) for

plate current of 25 μamp -25 volts

Grid-No. 1 Bias (Approx.) for plate voltage

of 600 volts and plate current of 50 μamp -60 volts

Mechanical:

Mounting Position. Any

Maximum Overall Length. 3-5/16"

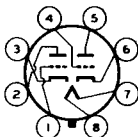
Maximum Seated Length. 2-3/4"

Maximum Diameter. 1-9/32"

Bulb T-9

Base . Short Intermediate-Shell Octal 8-Pin (JETEC No. B8-46)

Basing Designation for BOTTOM VIEW. 8BD

Pin 1-Grid of
Unit No. 2Pin 2-Plate of
Unit No. 2Pin 3-Cathode of
Unit No. 2Pin 4-Grid of
Unit No. 1Pin 5-Plate of
Unit No. 1Pin 6-Cathode of
Unit No. 1

Pin 7-Heater

Pin 8-Heater

← Indicates a change

OCT. 1, 1953

TUBE DEPARTMENT

RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY

DATA



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MEDIUM-MU TWIN TRIODE

VERTICAL DEFLECTION AMPLIFIER

Values are for Each Unit

Maximum Ratings, Design-Center Values:

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

DC PLATE SUPPLY VOLTAGE.	600 max.	volts
DC PLATE VOLTAGE	500 max.	volts
PEAK POSITIVE-PULSE PLATE VOLTAGE ^o	1800 max.	volts
PEAK NEGATIVE-PULSE GRID VOLTAGE	500 max.	volts
DC CATHODE CURRENT	60 max.	ma
PLATE DISSIPATION.	10 max.	watts
Total for Both Units	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

Typical Operation in a Vertical Deflection Circuit:

DC Plate Voltage	450	volts
Cathode-Bias Resistor.	1200	ohms
Grid-Input Voltage, Approx. (See Fig.1):		
Peak-to-peak sawtooth component.	36	volts
Negative peaking component	44	volts
DC Plate Current	11	ma
Plate-Output Voltage, Approx. (See Fig.2):		
Peak-to-peak sawtooth component.	270	volts
Peak positive pulse component.	600	volts

Maximum Circuit Values:

Grid-Circuit Resistance.	4.7 max.	megohms
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* As described in "Standards of Good Engineering Practice for Television Broadcast Stations", Federal Communications Commission.

^o The duration of the voltage pulse must not exceed 15 per cent of one scanning cycle. In a 525-line, 30-frame system, 15 per cent of one scanning cycle is 2.5 milliseconds.

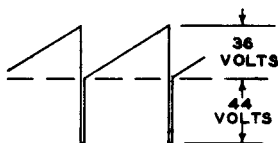


Fig. 1 - Waveform at
Grid of 6BL7-GT

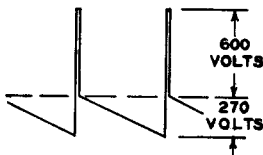


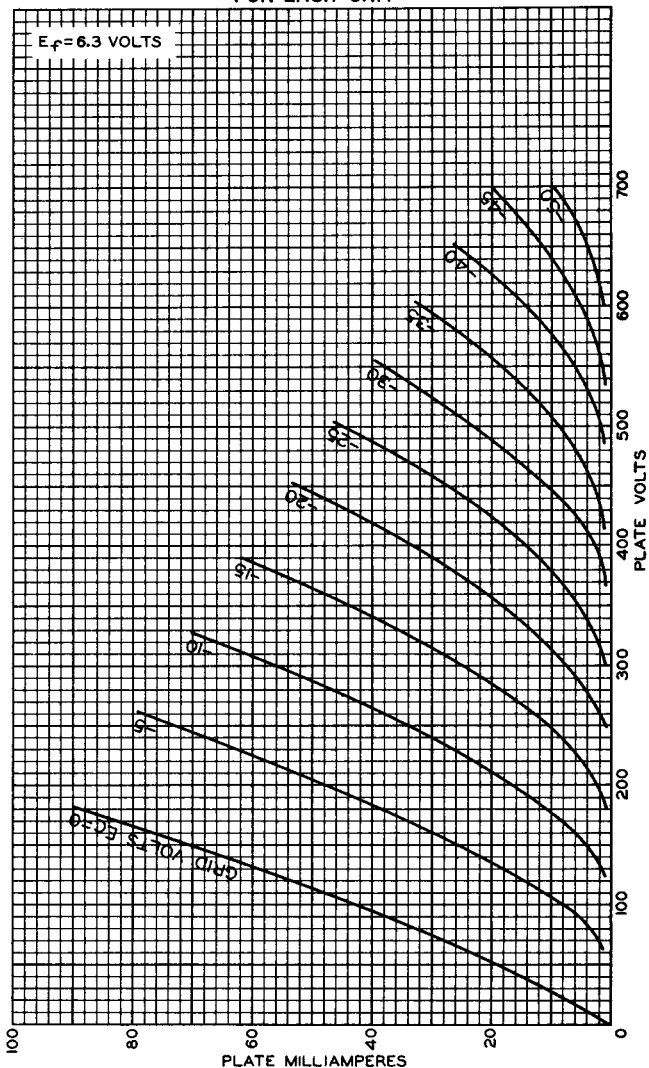
Fig. 2 - Waveform at
Plate of 6BL7-GT



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AVERAGE PLATE CHARACTERISTICS FOR EACH UNIT



OCT. 26, 1953

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