



6BL7-GT

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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:	Without External Shield	With External Shield No. 308 Tied to Cathode
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Unit No. 1:

Grid to Plate. . . .	4.2	4.2	$\mu\mu\text{f}$
Input.	4.4	5.0	$\mu\mu\text{f}$
Output.	1.1	3.4	$\mu\mu\text{f}$

Unit No. 2:

Grid to Plate. . . .	4.0	4.0	$\mu\mu\text{f}$
Input.	4.8	5.0	$\mu\mu\text{f}$
Output.	1.2	3.2	$\mu\mu\text{f}$
Grid of Unit No. 1 to Grid of Unit No. 2	0.11	0.10	$\mu\mu\text{f}$
Plate of Unit No. 1 to Plate of Unit No. 2	1.5	1.2	$\mu\mu\text{f}$

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)

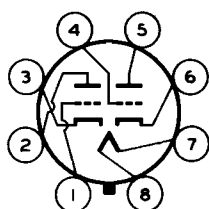
Basing Designation for BOTTOM VIEW. 8BD

Pin 1-Grid of Unit No. 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

← 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.

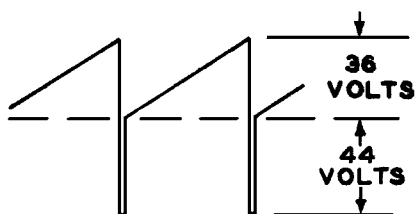


Fig.1 - Waveform at
Grid of 6BL7-GT

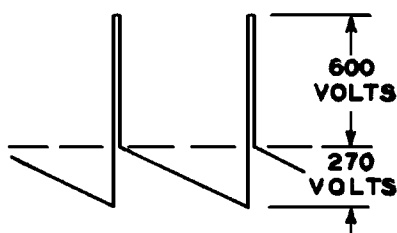


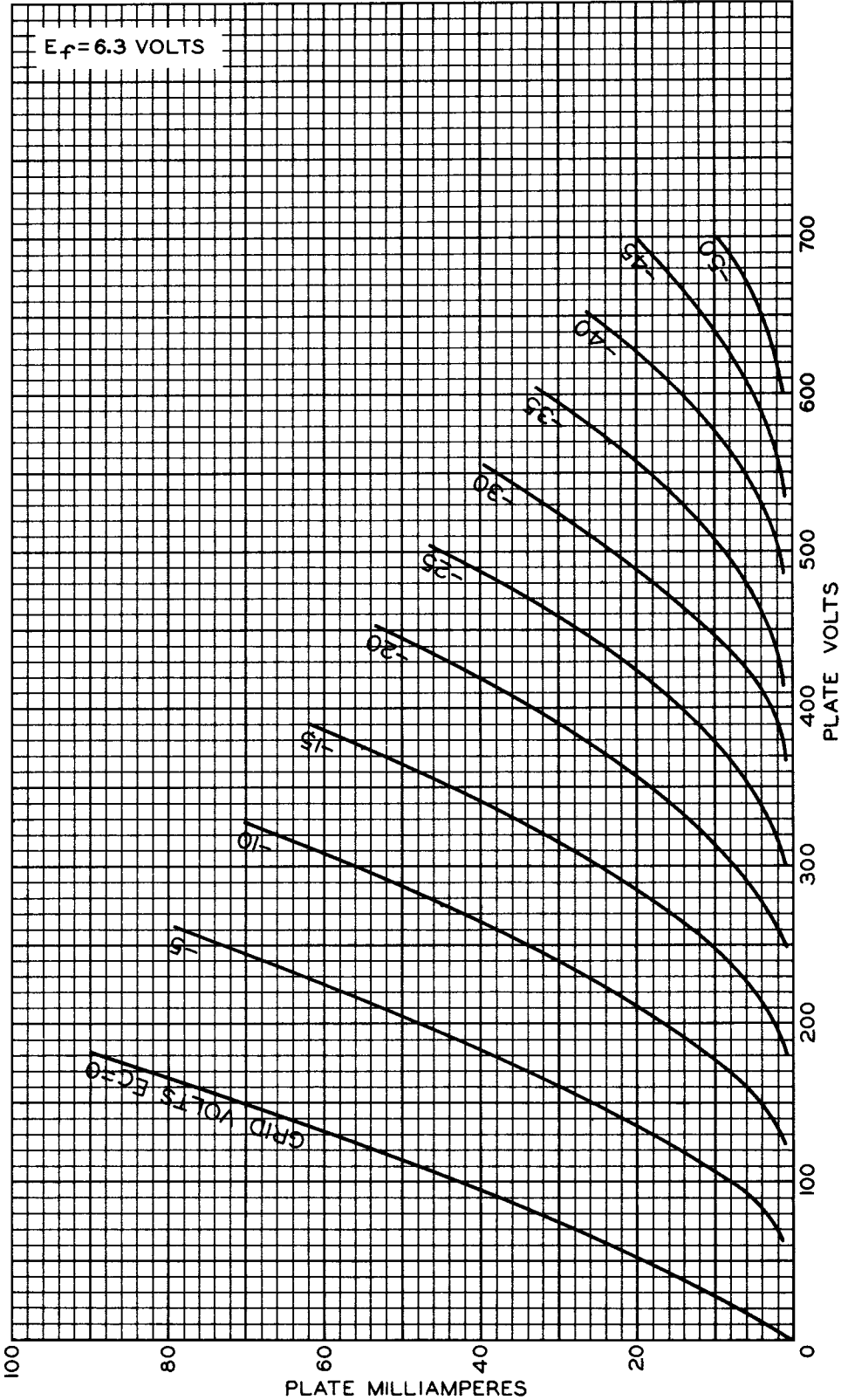
Fig.2 - Waveform at
Plate of 6BL7-GT



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AVERAGE PLATE CHARACTERISTICS FOR EACH UNIT



OCT. 26, 1953

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