



6BL7-GTA

MEDIUM-MU TWIN TRIODE

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GENERAL DATA

Electrical:

Heater, for Unipotential Cathodes:

Voltage. 6.3 ac or dc volts

Current. 1.5 amp

Direct Interelectrode Capacitances (Approx.):^o

	Unit No.1	Unit No.2	
Grid to plate.	6	6	$\mu\mu\text{f}$
Grid to cathode and heater . . .	4.2	4.6	$\mu\mu\text{f}$
Plate to cathode and heater. . .	0.9	0.9	$\mu\mu\text{f}$

Characteristics, Class A₁ Amplifier (Each Unit):

Plate Voltage.	150	250	250	volts
Grid Voltage	0	-17	-9	volts
Amplification Factor	-	-	15	
Plate Resistance (Approx.)	-	-	2150	ohms
Transconductance	-	-	7000	μmhos
Plate Current.	65*	4	40	ma
Grid Voltage (Approx.) for plate current of 50 μa	-	-	-23	volts

Mechanical:

Operating Position Any

Maximum Overall Length 3-5/16"

Maximum Seated Length. 2-3/4"

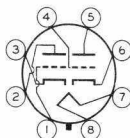
Maximum Diameter 1-9/32"

Dimensional Outline. See General Section

Bulb T9

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.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

VERTICAL DEFLECTION OSCILLATOR[‡]

Unless Otherwise Specified, 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

^o, *, [‡], [□]: see next page.



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CATHODE CURRENT:

Peak	210	max.	ma
DC	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.	4.7	max.	megohms
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VERTICAL DEFLECTION AMPLIFIER[♦]

Unless Otherwise Specified, 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
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PEAK POSITIVE-PULSE PLATE VOLTAGE[#]

(Absolute maximum)	2000 [■]	max.	volts
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PEAK NEGATIVE-PULSE GRID VOLTAGE	250	max.	volts
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CATHODE CURRENT:

Peak	210	max.	ma
DC	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 [†]	4.7	max.	megohms

[○] Without external shield.

^{*} This value can be measured by a method involving a recurrent wave form such that the maximum ratings of the tube will not be exceeded.

[♦] When this tube type is operated as a combined vertical deflection oscillator and amplifier, 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.

[†] In stages operating with grid-resistor bias, an adequate cathode resistor or other suitable means is required to protect the tube in the absence of excitation.



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6BL7-GTA AVERAGE PLATE CHARACTERISTICS EACH UNIT

