



6SN7-GTA

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MEDIUM-MU TWIN TRIODE

GENERAL DATA

Electrical:

Heater, for Unipotential Cathodes:

Voltage 6.3 ac or dc volts

Current 0.6 amp

Direct Interelectrode Capacitances (With no external shield):

	Unit No.1	Unit No.2	
Grid to plate	4	3.8	$\mu\mu\text{f}$
Grid to cathode and heater . .	2.2	2.6	$\mu\mu\text{f}$
Plate to cathode and heater . .	0.7	0.7	$\mu\mu\text{f}$

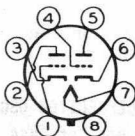
Characteristics, Class A₁ Amplifier (Each Unit):

Plate Voltage	90	250	volts
Grid Voltage	0	-8	volts
Amplification Factor	20	20	volts
Plate Resistance (Approx.) . . .	6700	7700	ohms
Transconductance	3000	2600	μmhos
Plate Current	10	9	ma
Plate Current for grid voltage of -12.5 volts	-	1.3	ma
Grid Voltage (Approx.) for plate current of 10 μamp	-7	-18	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 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

AMPLIFIER - Class A₁

Values are for Each Unit

Maximum Ratings, Design-Center Values:

PLATE VOLTAGE	450 max.	volts
CATHODE CURRENT	20 max.	ma

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PLATE DISSIPATION:

Either plate	5	max.	watts
Both plates (Both units operating) . . .	7.5	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 fixed-bias operation	1	max.	megohm
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Typical Operation as Resistance-Coupled Amplifier:

See *RESISTANCE-COUPLED AMPLIFIER CHART No. 29*
at front of this Section

HORIZONTAL DEFLECTION OSCILLATOR

Values are for Each Unit

Maximum Ratings, Design-Center Values:

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

DC PLATE VOLTAGE	450	max.	volts
PEAK NEGATIVE-PULSE GRID VOLTAGE▲	600	max.	volts

CATHODE CURRENT:

Peak	300	max.	ma
Average	20	max.	ma

PLATE DISSIPATION:

Either plate	5	max.	watts
Both plates (Both units operating) . . .	7.5	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 fixed-bias, grid-resistor bias, or cathode-bias operation	2.2	max.	megohms
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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	450	max.	volts
PEAK NEGATIVE-PULSE GRID VOLTAGE*	400	max.	volts

CATHODE CURRENT:

Peak	70	max.	ma
Average	20	max.	ma

▲, □, ●, #: See next page.

JUNE 14, 1954

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TENTATIVE DATA 1

RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY



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MEDIUM-MU TWIN TRIODE

PLATE DISSIPATION:

Either plate 5 max. watts
Both plates (Both units operating) . . . 7.5 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 fixed-bias, grid-resistor bias, or
cathode-bias operation 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 450 max. volts

PEAK POSITIVE-PULSE PLATE VOLTAGE[#]:(Absolute Maximum) . . . 1500[■] max. volts

PEAK NEGATIVE-PULSE GRID VOLTAGE 250 max. volts

CATHODE CURRENT:

Peak 70 max. ma
Average 20 max. ma

PLATE DISSIPATION:

Either plate 5 max. watts
Both plates (Both units operating) . . . 7.5 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

[▲] The dc component must not exceed 100 volts.[□] As described in "Standards of Good Engineering Practice Concerning Television Broadcast Stations", Federal Communications Commission.[▲] This rating is applicable where the duration of the voltage pulse does not exceed 15 per cent of one horizontal scanning cycle. In a 525-line, 30-frame system, 15 per cent of one horizontal scanning cycle is 10 microseconds.[#] 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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TENTATIVE DATA 2

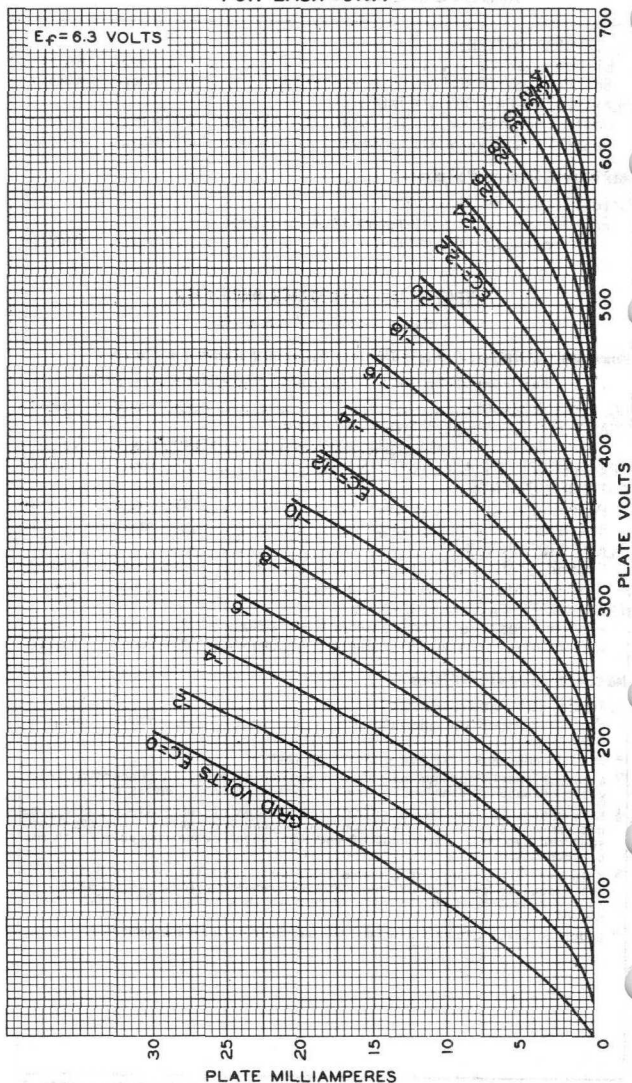
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AVERAGE PLATE CHARACTERISTICS
FOR EACH UNIT



APRIL 28, 1954

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92CM-8322

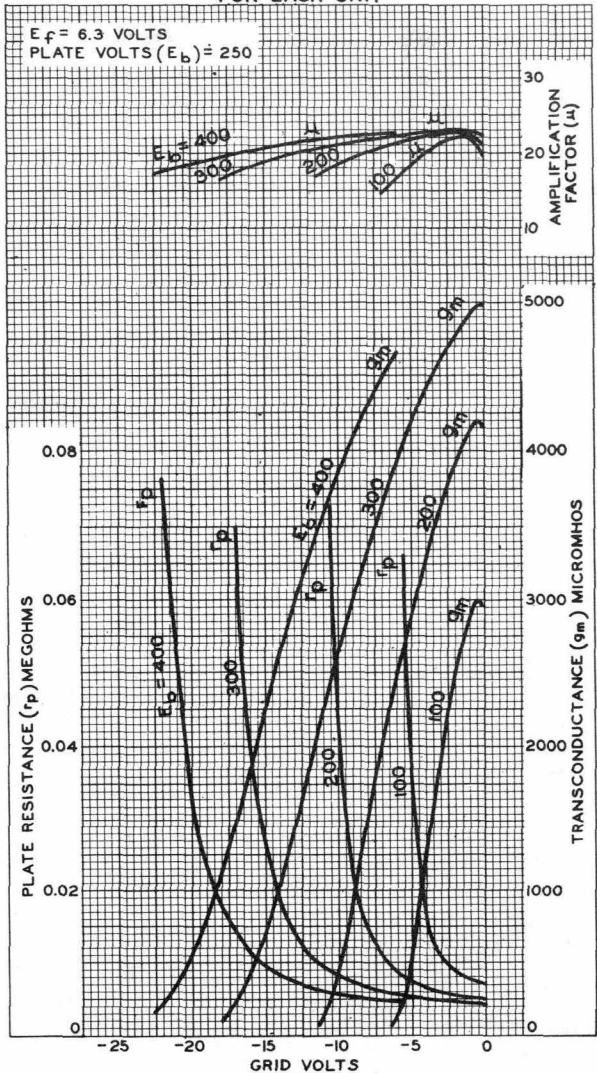
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AVERAGE CHARACTERISTICS FOR EACH UNIT



OCT. 14, 1953

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