



6AT6

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TWIN DIODE—HIGH-MU TRIODE

7-PIN MINIATURE TYPE

GENERAL DATA

Electrical:

Heater, for Unipotential Cathode:

Voltage 6.3 ac or dc volts

Current 0.3 amp

Direct Interelectrode Capacitances:

	Without External Shield	With External Shield ⁰	
Grid to triode plate.	2.0	2.0	μf
Grid to cathode and heater. . .	2.2	2.2	μf
Plate to cathode and heater . .	0.8	1.2	μf
Plate of diode unit No.2 to triode grid.	0.04 max.		μf

Characteristics, Class A₁ Amplifier (Triode Unit):

Plate Voltage	100	250	volts
Grid Voltage.	-1	-3	volts
Amplification Factor.	70	70	
Plate Resistance (Approx.). . .	54000	58000	ohms
Transconductance.	1300	1200	μmhos
Plate Current	0.8	1	ma

Mechanical:

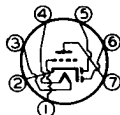
Mounting Position	Any
Maximum Overall Length.	2-1/8"
Maximum Seated Length.	1-7/8"
Length, Base Seat to Bulb Top (Excluding tip)	1-1/2" $\pm$ 3/32"
Maximum Diameter.	3/4"
Dimensional Outline	See General Section
Bulb.	T-5-1/2
Base.	Small-Button Miniature 7-Pin (JETEC No. E7-1)
Basing Designation for BOTTOM VIEW.	7BT

Pin 1 - Triode Grid

Pin 2 - Cathode

Pin 3 - Heater

Pin 4 - Heater



Pin 5 - Diode

Plate No.2

Pin 6 - Diode

Plate No.1

Pin 7 - Triode Plate

TRIODE UNIT—AMPLIFIER - Class A₁

Maximum Ratings, Design-Center Values:

PLATE VOLTAGE. 300 max. volts

GRID VOLTAGE:

Positive bias value. 0 max. volts

PLATE DISSIPATION. 0.5 max. watt

PEAK HEATER-CATHODE VOLTAGE:

Heater negative with respect to cathode. 90 max. volts

Heater positive with respect to cathode. 90 max. volts

⁰ With external shield JETEC No. 316 connected to cathode.

← Indicates a change.

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→ Typical Operation as Resistance-Coupled Amplifier:

See *RESISTANCE-COUPLED AMPLIFIER CHART No. 7*
at front of this Section

DIODE UNITS

Maximum Ratings, Design-Center Values:

PLATE CURRENT (For each diode). 1.0 max. ma

Diode Considerations:

Consideration of these units, including typical circuits and diode curves, is given at the front of this Section. Diode biasing of the triode unit of the 6AT6 is not suitable.

→ indicates a change.

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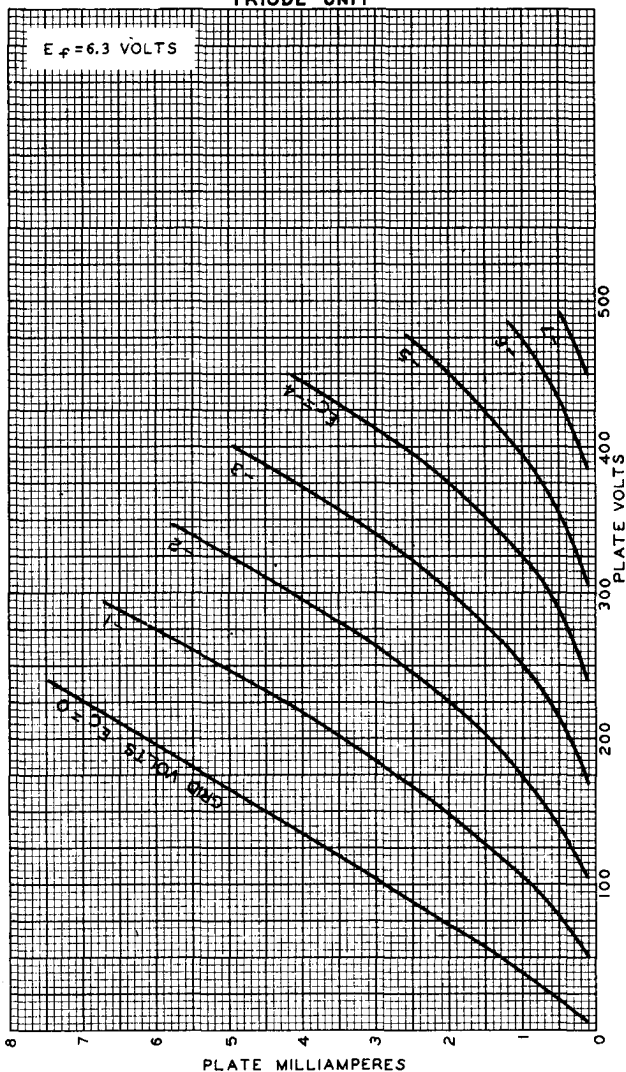
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AVERAGE PLATE CHARACTERISTICS TRIODE UNIT

6AT6



OCT. 19, 1945

RCA VICTOR DIVISION
RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY

92CM-6610