



12AE6-A

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TWIN DIODE—MEDIUM-MU TRIODE

7-PIN MINIATURE TYPE

*For use in automobile-radio receivers operating directly
from 12-volt storage batteries*

GENERAL DATA

Electrical:

Heater, for Unipotential Cathode:

Voltage range. 10 to 15.9 dc volts

This voltage range is on an absolute basis. For longest life, it is recommended that the heater be operated within the voltage range of 11 to 14 volts.

Current (Approx.)

at 12.6 volts. 0.15 amp

Direct Interelectrode Capacitances (Approx.):⁰Triode grid to triode plate. 2 μ fTriode grid to cathode and heater. 1.8 μ fTriode plate to cathode and heater. 1.1 μ fPlate of diode unit No.1 to plate of diode unit No.2. 0.9 μ f

Characteristics, Class A₁ Amplifier (Triode Unit):

Heater Voltage 12.6 12.6 volts

Plate Voltage. 12.6 12.6 volts

Grid Voltage — 0 volts

Grid Resistor. 10 — megohms

Amplification Factor 14.3 16.7

Plate Resistance (Approx.) 20000 13000 ohms

Transconductance 715 1300 μ mhos

Plate Current. 0.32 1 ma

Mechanical:

Operating 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"

Diameter 0.650" to 0.750"

Dimensional Outline. See General Section

Bulb T5-1/2

Base Small-Button Miniature 7-Pin (JEDEC No.E7-1)

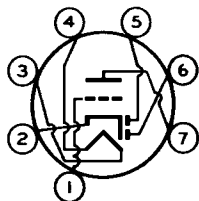
Basing Designation for BOTTOM VIEW 7BT

Pin 1—Grid of Triode Unit

Pin 2—Cathode of Triode Unit and Diode Units No.1 and No.2

Pin 3—Heater

Pin 4—Heater



Pin 5—Plate of Diode Unit No.2

Pin 6—Plate of Diode Unit No.1

Pin 7—Plate of Triode Unit

⁰: without external shield.



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TRIODE UNIT — AMPLIFIER — Class A₁

Maximum Ratings, Design-Center Values:

PLATE VOLTAGE.	30 max.	volts
CATHODE CURRENT.	20 max.	ma
PEAK HEATER-CATHODE VOLTAGE:		
Heater negative with respect to cathode.	30 max.	volts
Heater positive with respect to cathode.	30 max.	volts

Maximum Circuit Values:

Grid-Circuit Resistance.	10 max.	megohms
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DIODE UNITS — Two

Maximum Ratings, Design-Center Values:

Values are for Each Unit

PLATE CURRENT.	1 max.	ma
PEAK HEATER-CATHODE VOLTAGE:		
Heater negative with respect to cathode.	30 max.	volts
Heater positive with respect to cathode.	30 max.	volts

Characteristics:

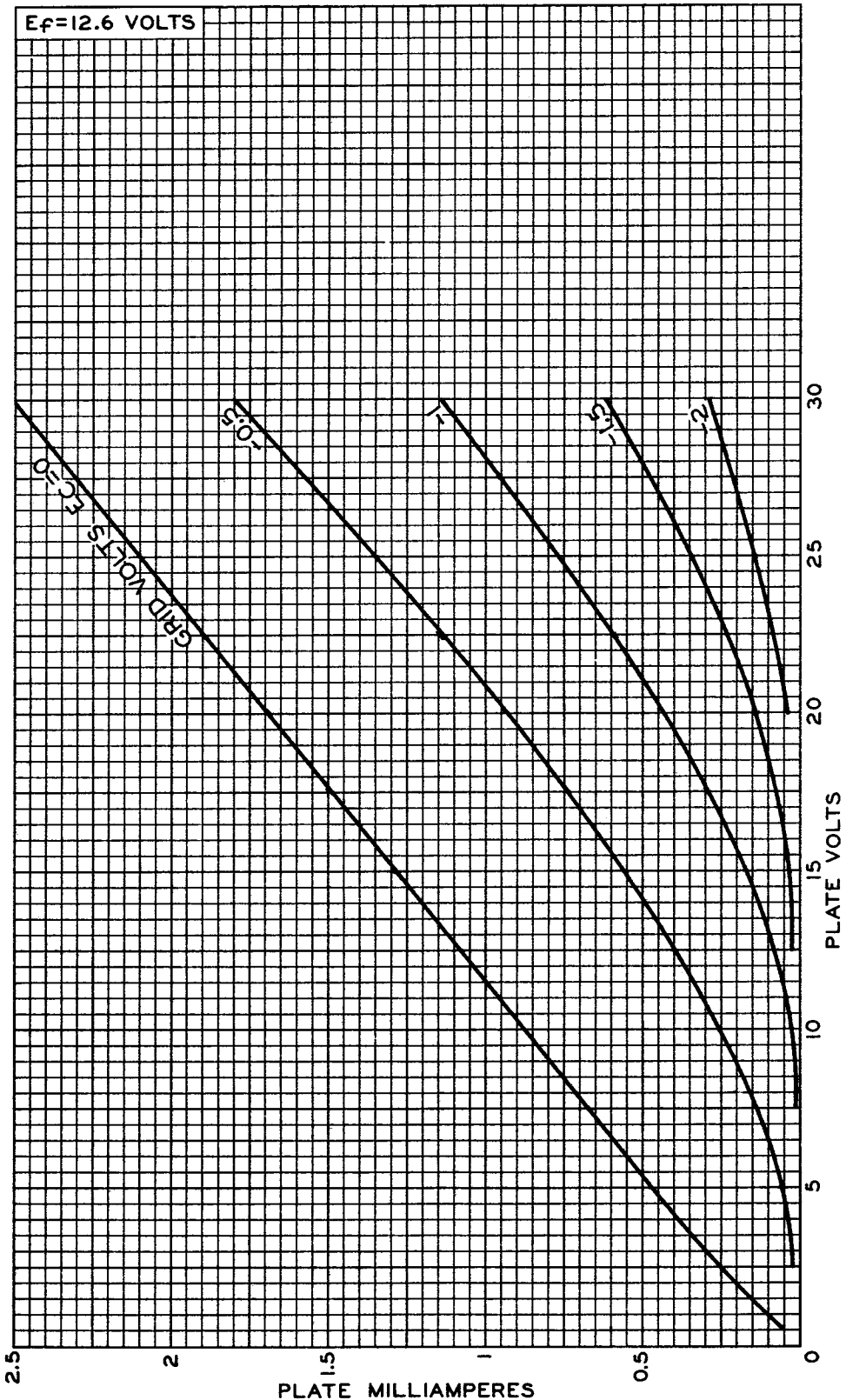
Heater Voltage	12.6	volts
Plate Voltage.	10	volts
Plate Current.	2	ma



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AVERAGE PLATE CHARACTERISTICS TRIODE UNIT

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AVERAGE CHARACTERISTICS TRIODE UNIT

