



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.):⁰

Triode grid to triode plate.	2	μf
Triode grid to cathode and heater.	1.8	μf
Triode plate to cathode and heater	1.1	μf
Plate of diode unit No.1 to plate of diode unit No.2.	0.9	μf

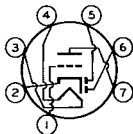
Characteristics, Class A₁ Amplifier (Triode Unit):

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	μmhos
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" ± 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:

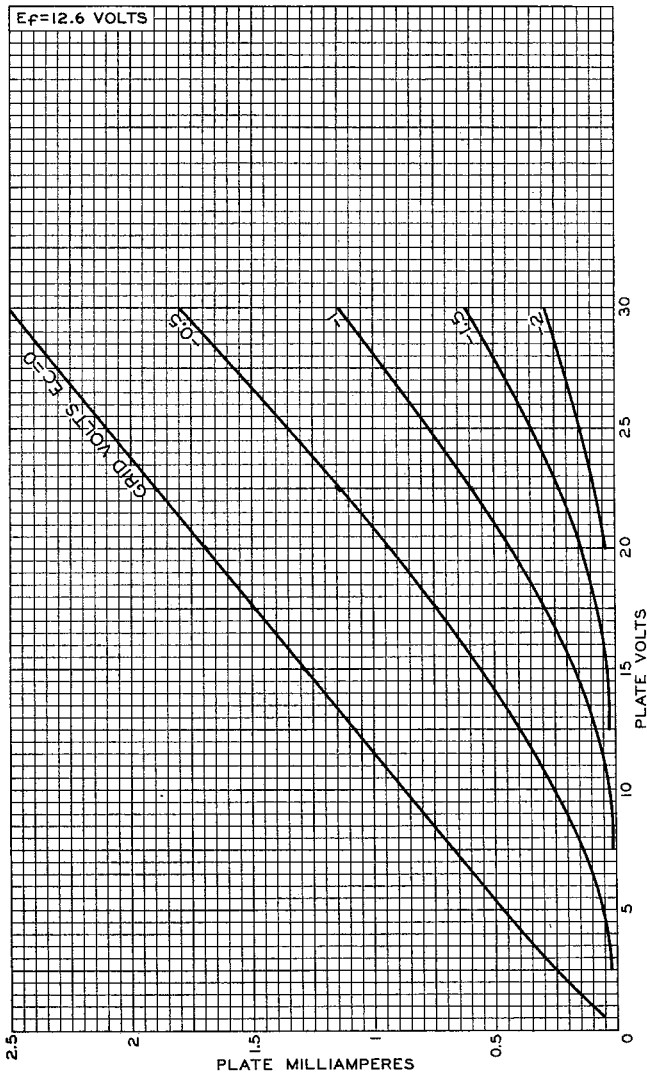
Heater Voltage	12.6	volts
Plate Voltage.	10	volts
Plate Current.	2	ma



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AVERAGE PLATE CHARACTERISTICS
TRIODE UNIT

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AVERAGE CHARACTERISTICS TRIODE UNIT

