



6AX8

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MEDIUM-MU TRIODE— SHARP-CUTOFF PENTODE

9-PIN MINIATURE TYPE

GENERAL DATA**Electrical:**

Heater, for Unipotential Cathodes:

Voltage (AC or DC)	6.3	volts
Current	0.45	amp

Direct Interelectrode Capacitances:⁰**Triode Unit:**

Grid to plate	1.8	$\mu\mu\text{f}$
Grid to cathode and heater.	2.5	$\mu\mu\text{f}$
Plate to cathode and heater	1	$\mu\mu\text{f}$

Pentode Unit:

Grid No.1 to plate.	0.006 max.	$\mu\mu\text{f}$
Grid No.1 to cathode & grid No.3 & internal shield, grid No.2, and heater.	5	$\mu\mu\text{f}$
Plate to cathode & grid No.3 & internal shield, grid No.2, and heater.	3.5	$\mu\mu\text{f}$
Heater to cathode (Each unit)	3.5 [*]	$\mu\mu\text{f}$

Characteristics, Class A₁ Amplifier:

	Triode Unit	Pentode Unit	
Plate Supply Voltage.	150	250	volts
Grid-No.2 Supply Voltage.	—	110	volts
Cathode Resistor.	56	120	ohms
Amplification Factor.	40	—	
Plate Resistance (Approx.).	0.005	0.4	megohm
Transconductance.	8500	4800	μmhos
Plate Current	18	10	ma
Grid-No.2 Current	—	3.5	ma
Grid-No.1 Voltage (Approx.) for plate $\mu\text{a} = 10$	-12	-12	volts

Mechanical:

Operating Position.	Any
Maximum Overall Length.	2-3/16"
Maximum Seated Length	1-15/16"
Length, Base Seat to Bulb Top (Excluding tip).	1-9/16" $\pm$ 3/32"
Diameter.	0.750" to 0.875"
Dimensional Outline	See General Section
Bulb.	T6-1/2
Base.	Small-Button Noval 9-Pin (JEDEC No.E9-1)

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Basing Designation for BOTTOM VIEW. 9AE

Pin 1—Triode Plate

Pin 2—Pentode

Grid No.1

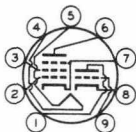
Pin 3—Pentode

Grid No.2

Pin 4—Heater

Pin 5—Heater

Pin 6—Pentode Plate



Pin 7—Pentode

Cathode,

Pentode

Grid No.3,

Internal

Shield

Pin 8—Triode Cathode

Pin 9—Triode Grid

AMPLIFIER — Class A₁

Maximum Ratings, Design-Center Values:

	Triode Unit	Pentode Unit	
PLATE VOLTAGE.	300 max.	300 max.	volts
GRID-No.2 (SCREEN-GRID) SUPPLY VOLTAGE	—	300 max.	volts
GRID-No.2 VOLTAGE.	—	See Grid-No.2 Input	

Rating Chart at front of Receiving Tube Section

GRID-No.1 (CONTROL-GRID)

VOLTAGE:

Positive-bias value. 0 max. 0 max. volts

GRID-No.2 INPUT:

For grid-No.2 voltages

up to 150 volts. — 0.5 max. watt

For grid-No.2 voltages

between 150 and 300 volts. — See Grid-No.2 Input

Rating Chart at front of Receiving Tube Section

PLATE DISSIPATION. 2.7 max. 2.8 max. watts

PEAK HEATER-CATHODE VOLTAGE:

Heater negative with

respect to cathode 90 max. 90 max. volts

Heater positive with

respect to cathode 90 max. 90 max. volts

Maximum Circuit Values:

	Triode Unit	Pentode Unit	
Grid-No.1 Circuit Resistance:			
For fixed-bias operation . . .	0.1 max.	0.1 max.	megohm
For cathode-bias operation . .	0.5 max.	0.5 max.	megohm

○ With external shield JEDEC No.315 connected to cathode of unit under test except as noted.

● With external shield JEDEC No.315 connected to ground.