



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	μf
Grid to cathode and heater.	2.5	μf
Plate to cathode and heater	1	μf

Pentode Unit:

Grid No.1 to plate.	0.006 max.	μf
Grid No.1 to cathode & grid No.3 & internal shield, grid No.2, and heater.	5	μf
Plate to cathode & grid No.3 & internal shield, grid No.2, and heater.	3.5	μf
Heater to cathode (Each unit)	3.5 [•]	μf

Characteristics, Class A₁ Amplifier:

	<i>Triode Unit</i>	<i>Pentode Unit</i>	
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

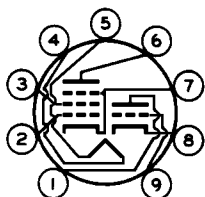
Pin 2—Pentode
Grid No.1

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.	—	<i>See Grid-No.2 Input Rating Chart at front of Receiving Tube Section</i>	

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. .	—	<i>See Grid-No.2 Input Rating Chart at front of Receiving Tube Section</i>	

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.