

Medium-Mu Triode— Sharp-Cutoff Pentode

9-PIN MINIATURE TYPE

GENERAL DATA

Electrical:

Heater Characteristics and Ratings:

Current	0.450 $\pm$ 0.030	amp
Voltage (AC or DC) at heater amperes = 0.450	8.4	volts
Warm-up time (Average).	11	sec
Peak heater-cathode voltage (Each Unit):		
Heater negative with respect to cathode.	200 max.	volts
Heater positive with respect to cathode.	200 ^a max.	volts

Direct Interelectrode Capacitances:^b

Triode Unit:

Grid to plate	2.2	pf
Grid to cathode and heater. . . .	2.6	pf
Plate to cathode and heater . . .	0.34	pf

Pentode Unit:

Grid No.1 to plate.	0.044	pf
Grid No.1 to cathode & internal shield & grid No.3, grid No.2, and heater.	7.5	pf
Plate to cathode & internal shield & grid No.3, grid No.2, and heater.	2.4	pf
Triode grid to pentode plate. . .	0.022 max.	pf
Pentode grid No.1 to triode plate	0.006 max.	pf
Pentode plate to triode plate . .	0.12 max.	pf

Characteristics, Class A₁ Amplifier:

	Triode Unit	Pentode Unit.	
Plate Supply Voltage.	150	200	volts
Grid-No.2 Supply Voltage.	—	125	volts
Cathode Resistor.	150	82	ohms
Amplification Factor.	40	—	
Plate Resistance (Approx.). . . .	8200	150000	ohms
Transconductance.	4900	7000	μ mhos
Plate Current	9	15	ma
Grid-No.2 Current	—	3.4	ma
Grid-No.1 Voltage (Approx.) for plate μ a = 100.	-6.5	8	volts

Mechanical:

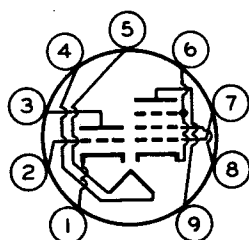
Operating Position.	Any
Type of Cathodes.	Coated Unipotential



8AU8

Maximum Overall Length. 2-5/8"
 Maximum Seated Length 2-3/8"
 Length; Base Seat to Bulb Top (Excluding tip). . . 2" $\pm$ 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)
 Basing Designation for BOTTOM VIEW. 9DX

Pin 1-Triode
 Cathode
 Pin 2-Triode
 Grid
 Pin 3-Triode
 Plate
 Pin 4-Heater
 Pin 5-Heater



Pin 6-Pentode
 Cathode,
 Grid No.3,
 Internal
 Shield
 Pin 7-Pentode
 Grid No.1
 Pin 8-Pentode
 Grid No.2
 Pin 9-Pentode
 Plate

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 <i>Grid-No.2 Input</i> <i>Rating Chart</i> 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	-	1 max.	watt
For grid-No.2 voltages be- tween 150 and 300 volts . . .	-	See <i>Grid-No.2 Input</i> <i>Rating Chart</i> at front of Receiving Tube Section	
PLATE DISSIPATION	2.5 max.	3 max.	watts

Maximum Circuit Values:

	Triode Unit	Pentode Unit	
Grid-No.1-Circuit Resistance:			
For fixed-bias operation. . .	0.5 max.	0.25 max.	megohm
For cathode-bias operation. .	1 max.	1 max.	megohm

OPERATING CONSIDERATIONS

Because the *internal shield* is connected to the cathode and grid No.3, the impedance in the cathode circuit should be kept as low as possible to minimize cross-coupling effects.

- ^a The dc component must not exceed 100 volts.
^b Without external shield.

