

8AU8

Medium-Mu Triode— Sharp-Cutoff Pentode

9-PIN MINIATURE TYPE

GENERAL DATA

Electrical:

Heater Characteristics and Ratings:

Current	0.450 ± 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	μmhos
Plate Current	9	15	ma
Grid-No.2 Current	-	3.4	ma
Grid-No.1 Voltage (Approx.) for plate μa = 100.	-6.5	8	volts

Mechanical:

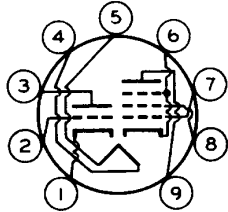
Operating Position.	Any
Type of Cathodes.	Coated Unipotential



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Maximum Overall Length. 2-5/8"
 Maximum Seated Length 2-3/8"
 Length, Base Seat to Bulb Top (Excluding tip). 2" ± 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:

	<i>Triode Unit</i>	<i>Pentode Unit</i>	
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 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 Rating Chart</i> at front of Receiving Tube Section	
PLATE DISSIPATION	2.5 max.	3 max.	watts

Maximum Circuit Values:

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

