

Medium-Mu Triode— Sharp-Cutoff Pentode

9-PIN MINIATURE TYPE

With Heater Having Controlled Warm-Up Time

GENERAL DATA

Electrical:

Heater, for Unipotential Cathodes:

Voltage (AC or DC)	4.7	volts
Current	$0.6 \pm 6\%$	amp
Warm-up time (Average)	11	sec

Direct Interelectrode Capacitances:^a

Triode Unit:

Grid to plate	1.5	μmf
Grid to cathode and heater	2	μmf
Plate to cathode and heater	0.34	μmf

Pentode Unit:

Grid No.1 to plate	0.04 max.	μmf
Grid No.1 to cathode & grid No.3 & internal shield, grid No.2, and heater	7	μmf
Plate to cathode & grid No.3 & internal shield, grid No.2, and heater	3	μmf
Triode grid to pentode plate	0.005	μmf
Pentode grid No.1 to triode plate	0.006	μmf
Pentode plate to triode plate	0.045	μmf

Characteristics, Class A₁ Amplifier:

	Triode Unit	Pentode Unit	
Plate Supply Voltage	200	200	volts
Grid-No.2 Supply Voltage	—	150	volts
Grid-No.1 Voltage	—6	—	volts
Cathode Resistor	—	180	ohms
Amplification Factor	19	—	
Plate Resistance (Approx.)	5750	300000	ohms
Transconductance	3300	6200	μmhos
Plate Current	13	9.5	ma
Grid-No.2 Current	—	2.8	ma
Grid-No.1 Voltage (Approx.) for plate $\mu\text{a} = 10$	—19	—8	volts

Mechanical:

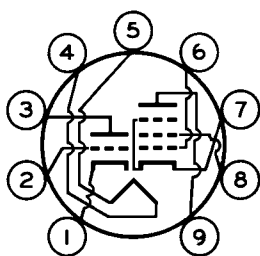
Operating Position	Any
Maximum Overall Length	2-3/16"
Maximum Seated Length	1-15/16"
Length, Base Seat to Bulb Top (Excluding tip)	1-9/16" $\pm$ 3/32"
Diameter	0.750" to 0.875"
Dimensional Outline	See General Section
Bulb	T6-1/2



5AV8

Base. Small-Button Noval 9-Pin (JEDEC No.E9-1)
 Basing Designation for BOTTOM VIEW. 9DZ

Pin 1-Triode
 Cathode
 Pin 2-Triode
 Grid
 Pin 3-Triode Plate
 Pin 4-Heater
 Pin 5-Heater
 Pin 6-Pentode
 Grid No.1



Pin 7-Pentode
 Cathode,
 Pentode
 Grid No.3,
 Internal
 Shield
 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 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	-	See <i>Grid-No.2 Input</i>	
<i>Rating Chart at front of Receiving Tube Section</i>			
PLATE DISSIPATION	2.5 max.	2 max.	watts
PEAK HEATER-CATHODE VOLTAGE:			
Heater negative with respect to cathode.	200 max.	200 max.	volts
Heater positive with respect to cathode.	200 ^b max.	200 ^b max.	volts

Maximum Circuit Values:

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

^a Without external shield.

^b The dc component must not exceed 100 volts.

^c If either unit is operated at maximum-rated conditions, grid-No.1-circuit resistances for both units should not exceed the stated values.

