

5AV8

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 ± 6% amp
Warm-up time (Average) 11 sec
Direct Interelectrode Capacitances:^a

Triode Unit:

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

Pentode Unit:

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

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 $\mu a = 10$	-19	-8	volts

Mechanical:

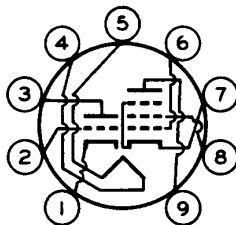
Operating Position Any
Maximum Overall Length 2-3/16"
Maximum Seated Length 1-15/16"
Length, Base Seat to Bulb Top (Excluding tip) . . 1-9/16" ± 3/32"
Diameter 0.750" to 0.875"
Dimensional Outline See *General Section*
Bulb T6-1/2



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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:

	<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	-	0.5 max.	watt
For grid-No. 2 voltages between 150 and 300 volts	-	See <i>Grid-No. 2 Input Rating Chart</i> at front of Receiving Tube Section	
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:

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

