

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)	6.3	volts
Current	0.6 ± 6%	amp
Warm-up time (Average)	11	sec

Direct Interelectrode Capacitances:^a*Triode Unit:*

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

Pentode Unit:

Grid No.1 to plate.	0.06	μf
Grid No.1 to cathode & internal shield & grid No.3, grid No.2, and heater.	7.5	μf
Plate to cathode & internal shield & grid No.3, grid No.2, and heater.	3.4	μf
Triode grid to pentode plate.	0.022 max.	μf
Pentode grid No.1 to triode plate	0.006 max.	μf
Pentode plate to triode plate	0.12 max.	μf

Characteristics, Class A₁ Amplifier:

	<i>Triode Unit</i>	<i>Pentode Unit</i>		
Plate Supply Voltage.	150	40	200	volts
Grid-No.2 Supply Voltage.	—	125	125	volts
Cathode Resistor.	150	—	82	ohms
Amplification Factor.	43	—	—	
Plate Resistance (Approx.)	8100	—	100000	ohms
Transconductance.	5300	—	8000	μmhos
Plate Current	9.5	28 ^b	17	ma
Grid-No.2 Current	—	10 ^b	3.4	ma
Grid-No.1 Voltage (Approx.) for plate μa = 100.	-6.5	—	-7.5	volts

Mechanical:

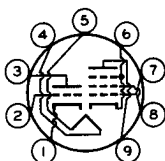
Operating Position.	Any
Maximum Overall Length.	2-5/8"
Maximum Seated Length	2-3/8"
Length, Base Seat to Bulb Top (Excluding tip)	2" ± 3/32"
Diameter.	0.750" to 0.875"
Dimensional Outline	See <i>General Section</i>
Bulb.	T6-1/2
Base.	Small-Button Noval 9-Pin (JEDEC No. E9-1)



6AU8A

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-Maximum Values:

	Triode Unit	Pentode Unit	
PLATE VOLTAGE	330 max.	330 max.	volts
GRID-No.2 (SCREEN-GRID) SUPPLY VOLTAGE.	-	330 max.	volts
GRID-No.2 VOLTAGE	-	See Grid-No.2 Input	

Rating Chart 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 165 volts	-	1 max.	watt
For grid-No.2 voltages be- tween 165 and 330 volts	-	See Grid-No.2 Input	

Rating Chart at front of Receiving Tube Section

PLATE DISSIPATION	2.8 max.	3.3 max.	watts
PEAK HEATER-CATHODE VOLTAGE:			
Heater negative with respect to cathode.	200 max.	200 max.	volts
Heater positive with respect to cathode.	200 ^c max.	200 ^c max.	volts

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.

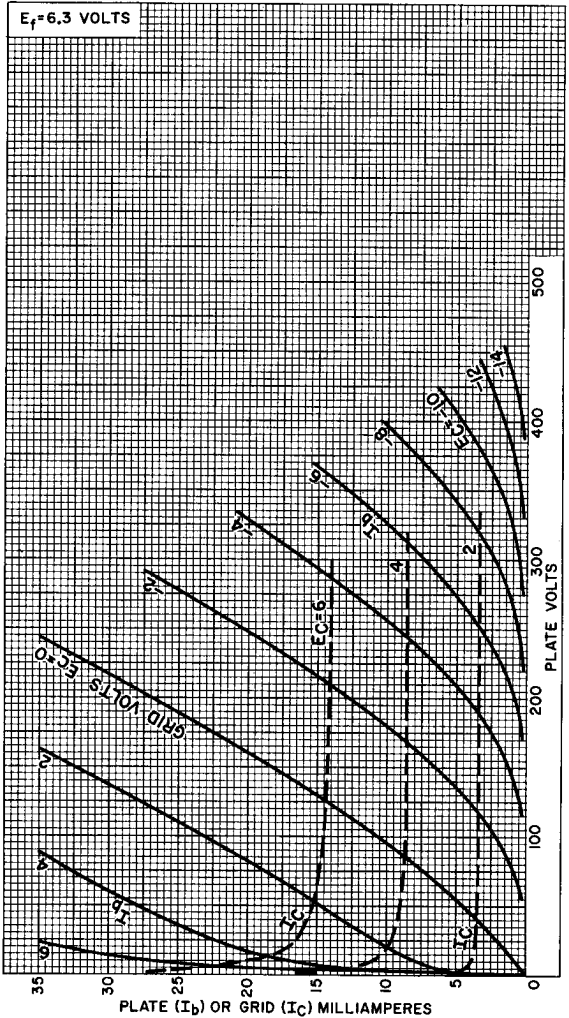
^a without external shield.

^b This value can be measured by a method involving a recurrent wave form such that the maximum ratings of the tube will not be exceeded.

^c The dc component must not exceed 100 volts.



AVERAGE CHARACTERISTICS Triode Unit

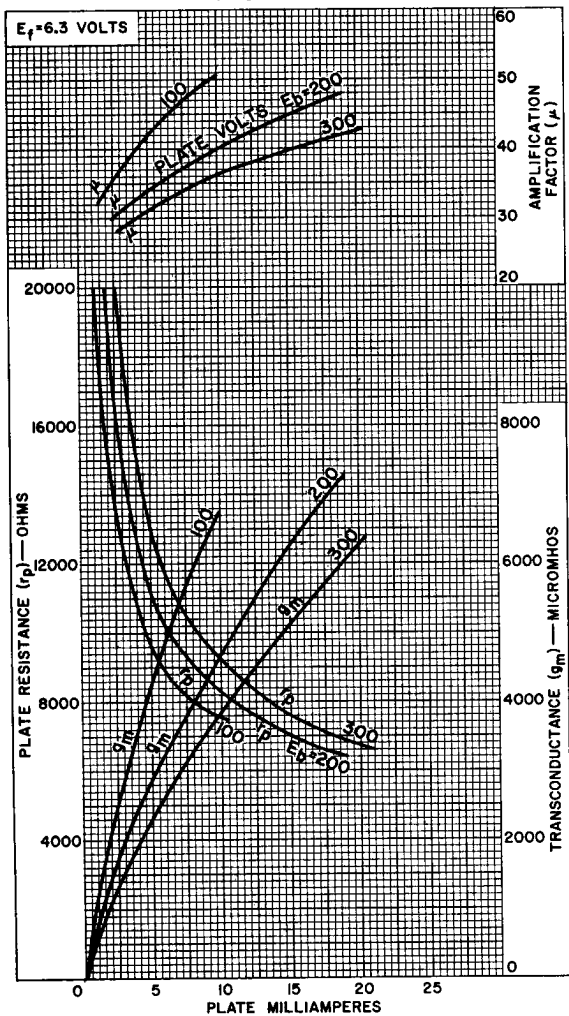


92CM-11140



6AU8A

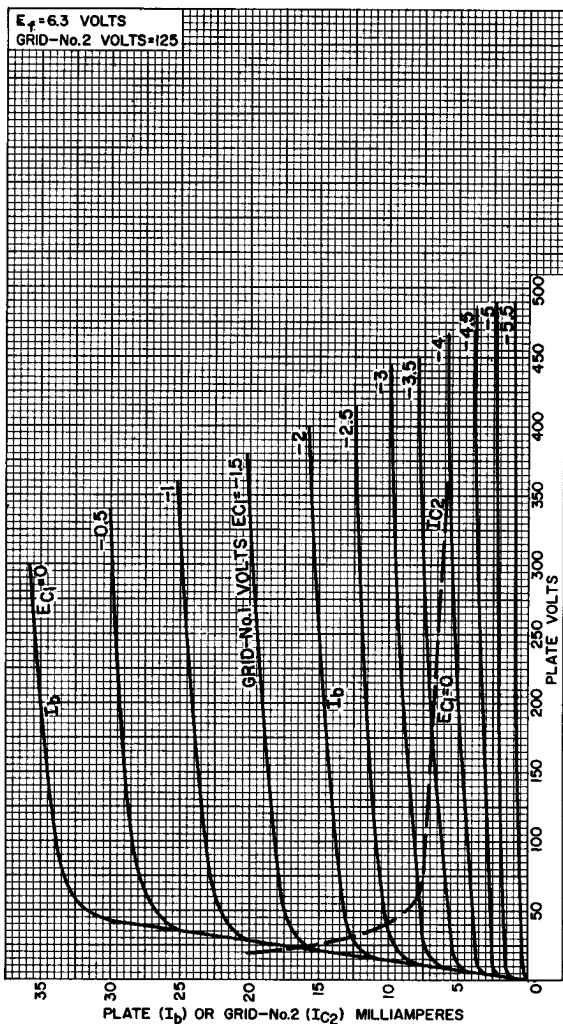
AVERAGE CHARACTERISTICS Triode Unit



92CM-11144RI



AVERAGE CHARACTERISTICS Pentode Unit

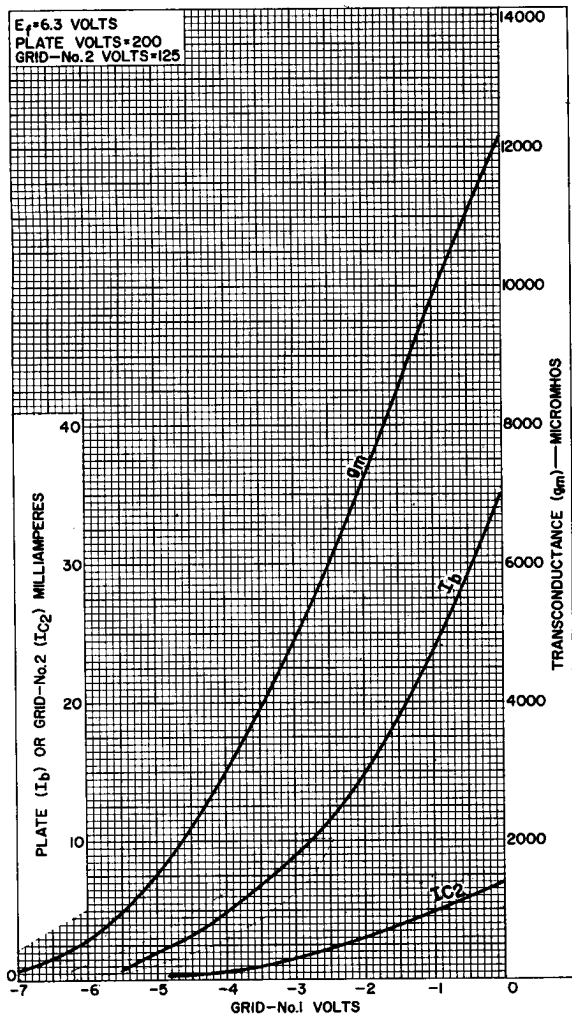


92CM-11141



6AU8A

AVERAGE CHARACTERISTICS Pentode Unit



92CM-11142

