

High-Mu Triode— Sharp-Cutoff Pentode

9-PIN MINIATURE TYPE

For Video-Amplifier Service in Color-TV Receivers and
Other Applications Using Positive Triode-Grid Operation

Electrical:

Heater Characteristics and Ratings:

Voltage (AC or DC)	6.3 ± 0.6 ^a	volts
Current at heater volts = 6.3.	0.600 ^b	amp
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 ^c max.	volts

Direct Interelectrode Capacitances:^d

Triode Unit:

G _T to P _T	2.2	pf
Input: G _T to (K _T , K _p +G _{3p} +IS, H)	3.2	pf
Output: P _T to (K _T , K _p +G _{3p} +IS, H)	1.8	pf

Pentode Unit:

G _{1p} to P _p	0.060 max.	pf
Input: G _{1p} to (K _p +G _{3p} +IS, G _{2p} , H)	10	pf
Output: P _p to (K _p +G _{3p} +IS, G _{2p} , H)	3.6	pf
G _{1p} to P _T	0.008 max.	pf
P _p to P _T	0.15 max.	pf

Mechanical:

Operating Position.	Any
Type of Cathodes.	Coated Unipotential
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

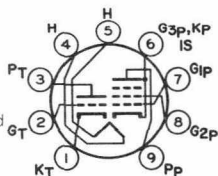
Pin 6—Pentode Cathode,

Grid No.3, Internal Shield

Pin 7—Pentode Grid No.1

Pin 8—Pentode Grid No.2

Pin 9—Pentode Plate



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Characteristics, Class A Amplifier:

	Triode Unit		Pentode Unit		
Plate Voltage.	200	40	75	100	volts
Grid-No.2 Voltage.	-	-	150	150	volts
Grid-No.1 Voltage.	-2	+3	0	-2.5	volts
Amplification Factor.	70	40	-	-	
Plate Resistance (Approx.) .	17500	10000	-	200000	ohms
Transconductance.	4000	4000	-	11000	μ mhos
Plate Current.	4	11	50 ^e	20	ma
Grid-No.2 Current.	-	-	12 ^e	5	ma
Grid-No.1 Current.	0	2.7	0	0	ma
Grid-No.1 Voltage (Approx.) for plate μ a = 20.	-5	-	-	-8	volts

AMPLIFIER — Class A^f

Maximum Ratings, Design-Maximum Values:

	Triode Unit as Class A ₁ or A ₂ Amplifier	Pentode Unit as Class A ₁ Amplifier	
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:

Negative-bias value. . . .	55 max.	55 max.	volts
Positive-bias value. . . .	4 max.	0 max.	volts
Grid-No.1 Current.	8 max.	0 max.	ma

Grid-No.2 Input:

For grid-No.2 voltages up

to 165 volts.	-	1.1 max.	watts
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For grid-No.2 voltages

between 165 and 330 volts	-	See Grid-No.2-Input Rating Chart at front of Receiving Tube Section	
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Plate Dissipation.	1.1 max.	3.75 max.	watts
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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

^a For parallel heater operation.

^b For series heater operation current must be limited to 0.600 ± 0.040 amperes.

^c The dc component must not exceed 100 volts.

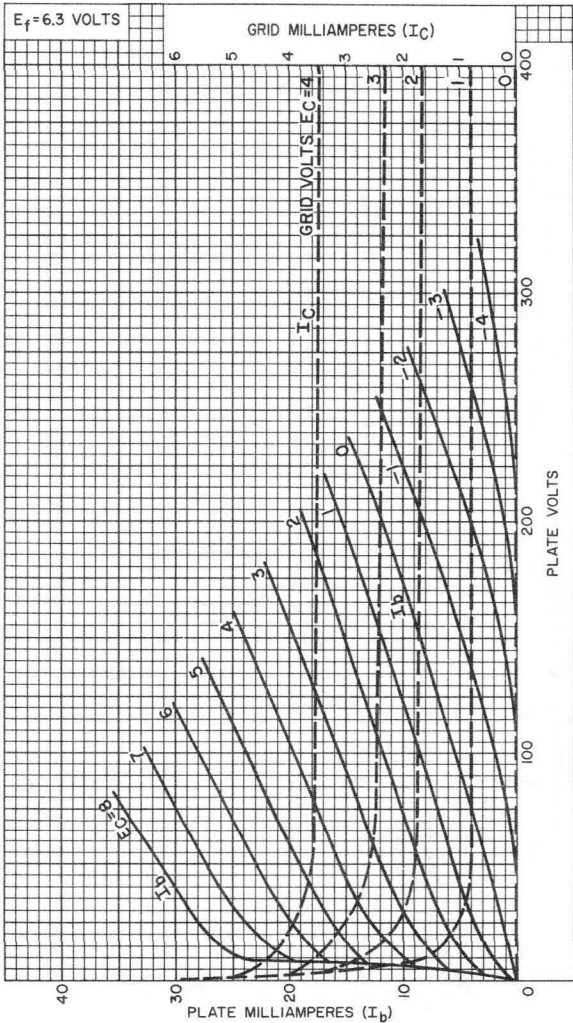
^d Without external shield.

^e 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.

^f A Class A Amplifier is an amplifier in which the grid bias and varying grid voltages are such that plate current flows at all times. The subscript 1 added to the class letter denotes that grid current does not flow during any part of the input cycle. The subscript 2 denotes that grid current flows during some part of the cycle.



AVERAGE CHARACTERISTICS Triode Unit

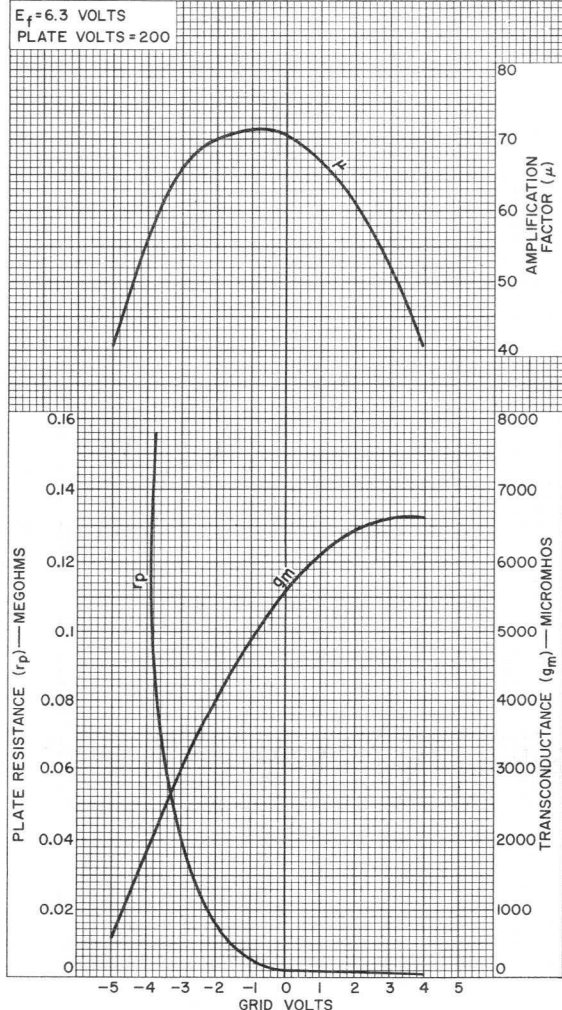


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AVERAGE CHARACTERISTICS Triode Unit

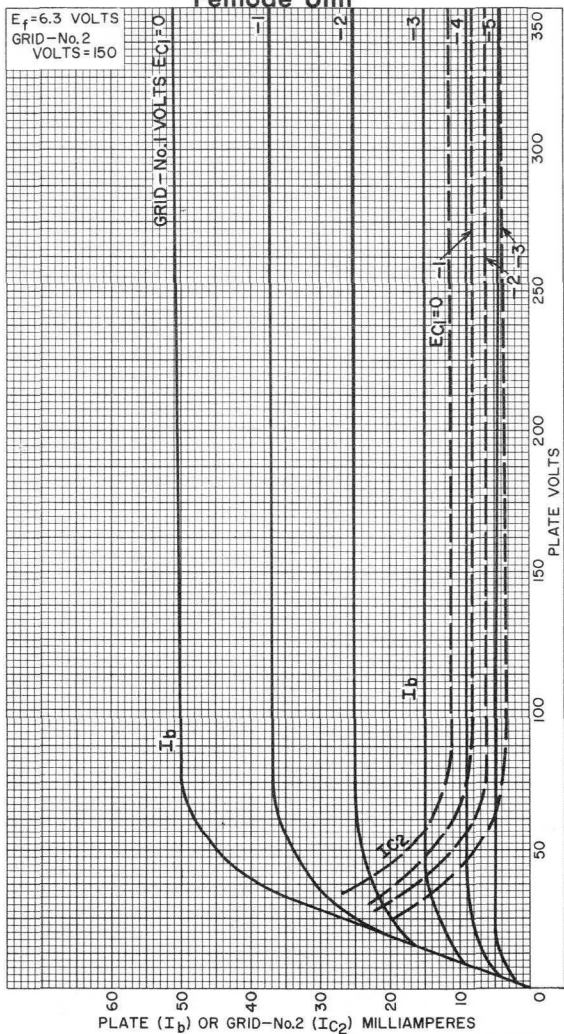


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AVERAGE CHARACTERISTICS

Pentode Unit

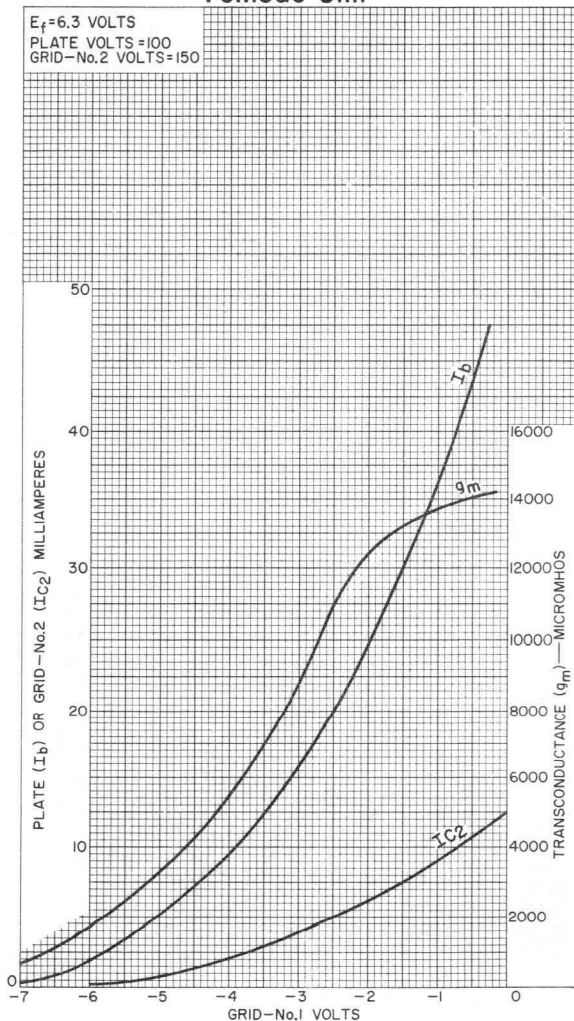


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AVERAGE CHARACTERISTICS Pentode Unit



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