

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

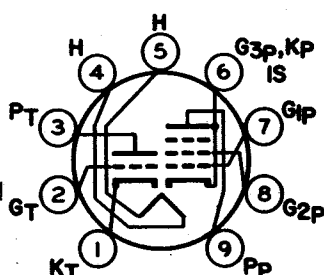
Pentode Unit:

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 <i>General Section</i>
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



6LF8

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

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.

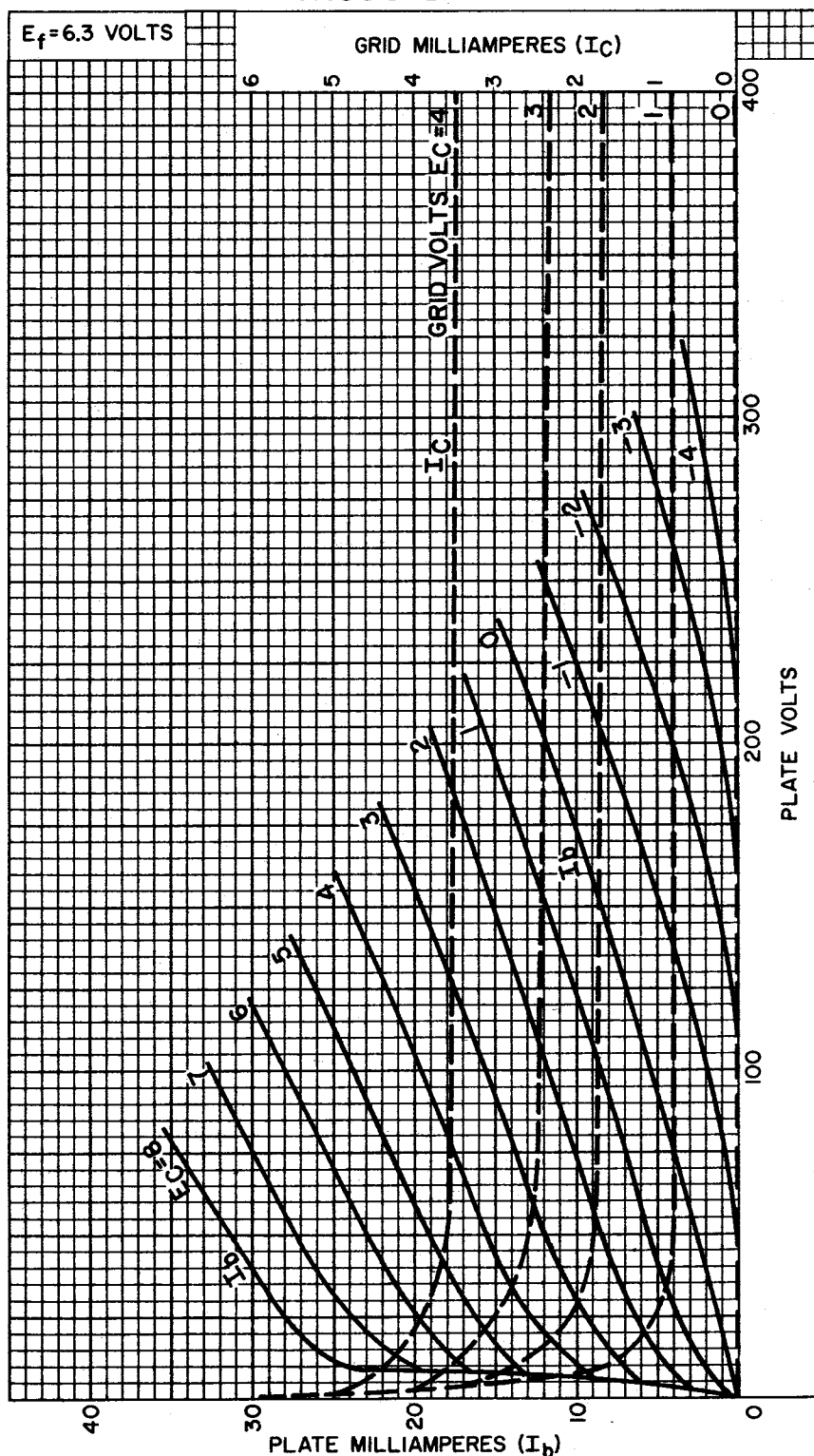
^d Without external shield.

^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

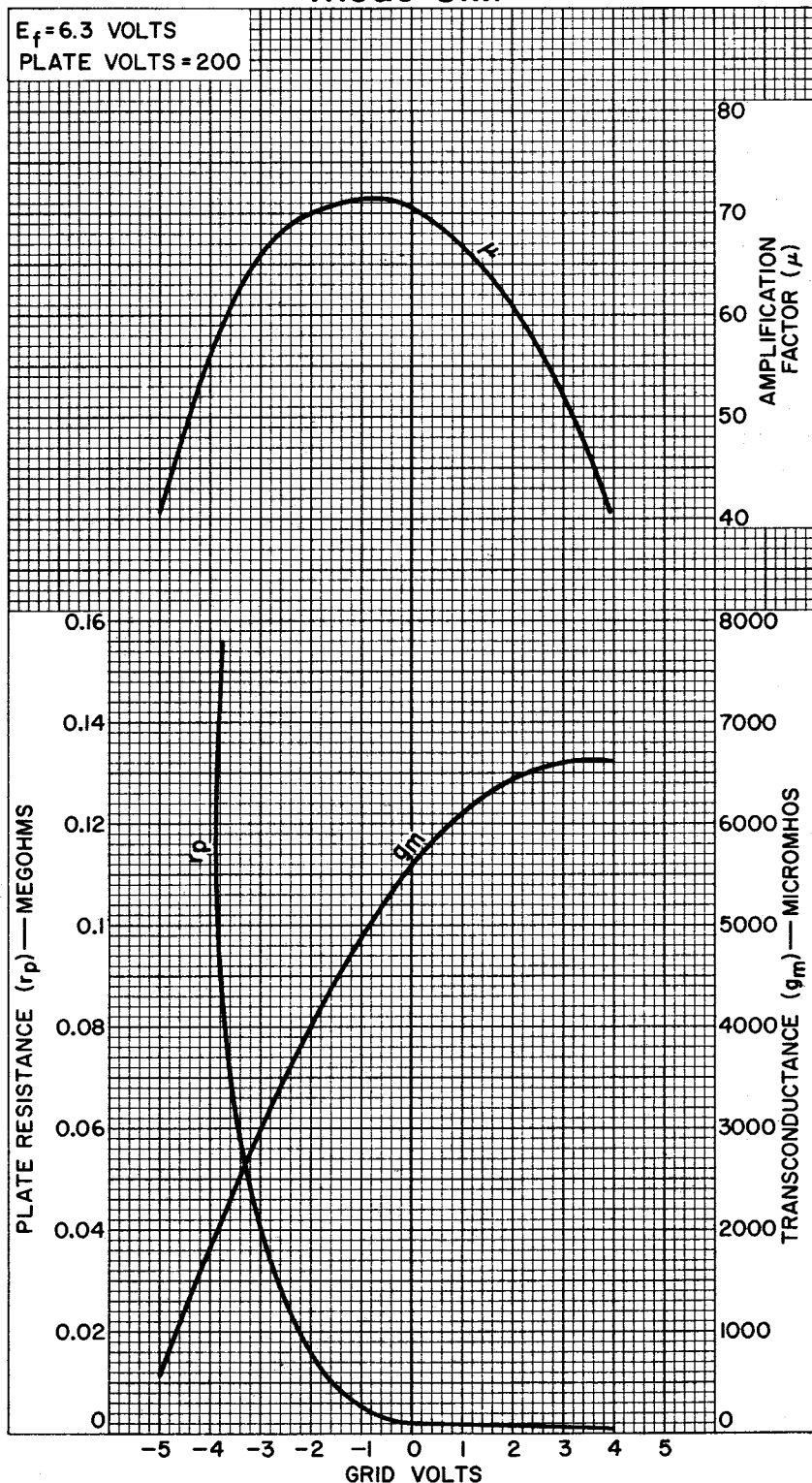


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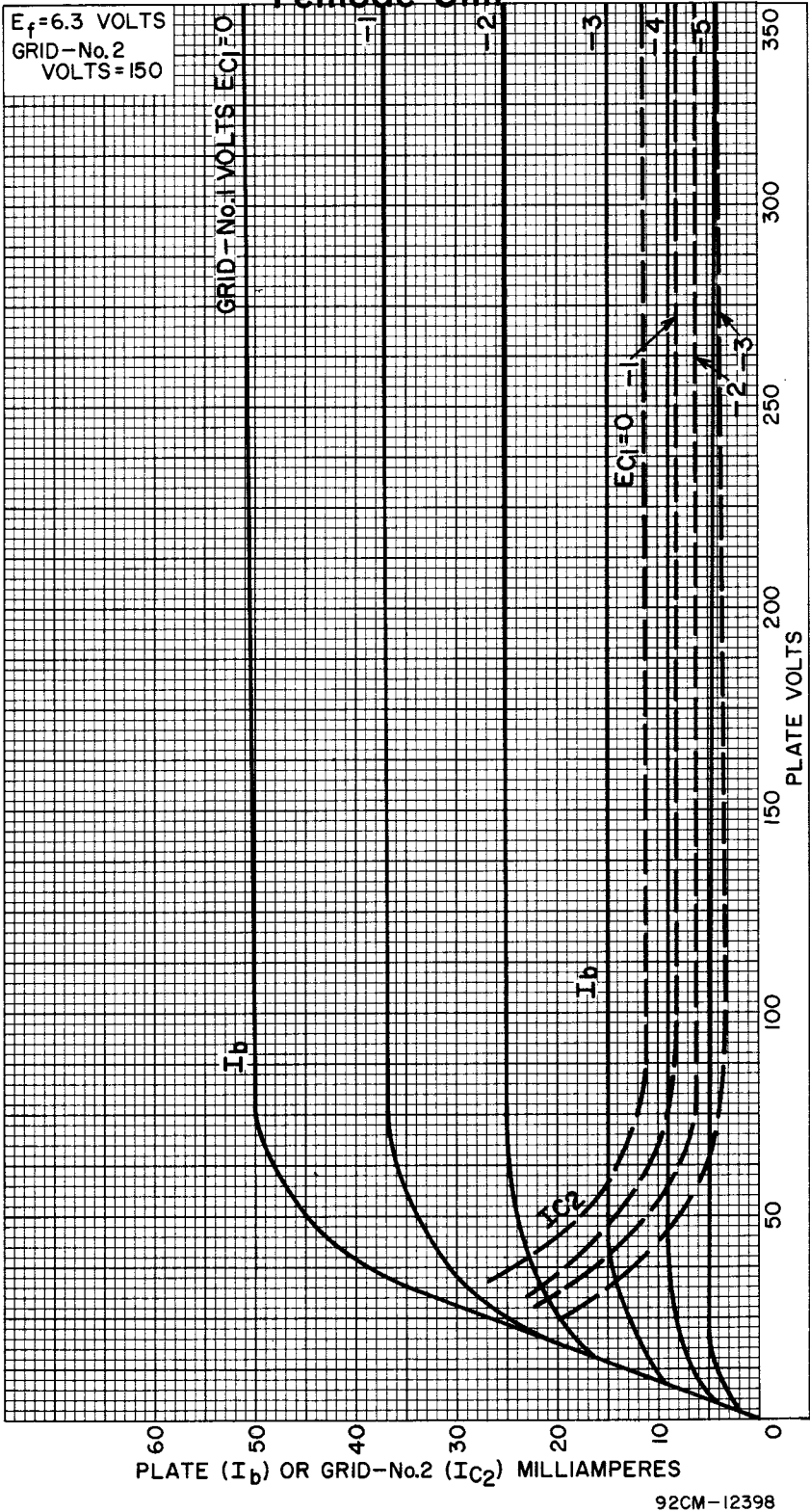
AVERAGE CHARACTERISTICS Triode Unit



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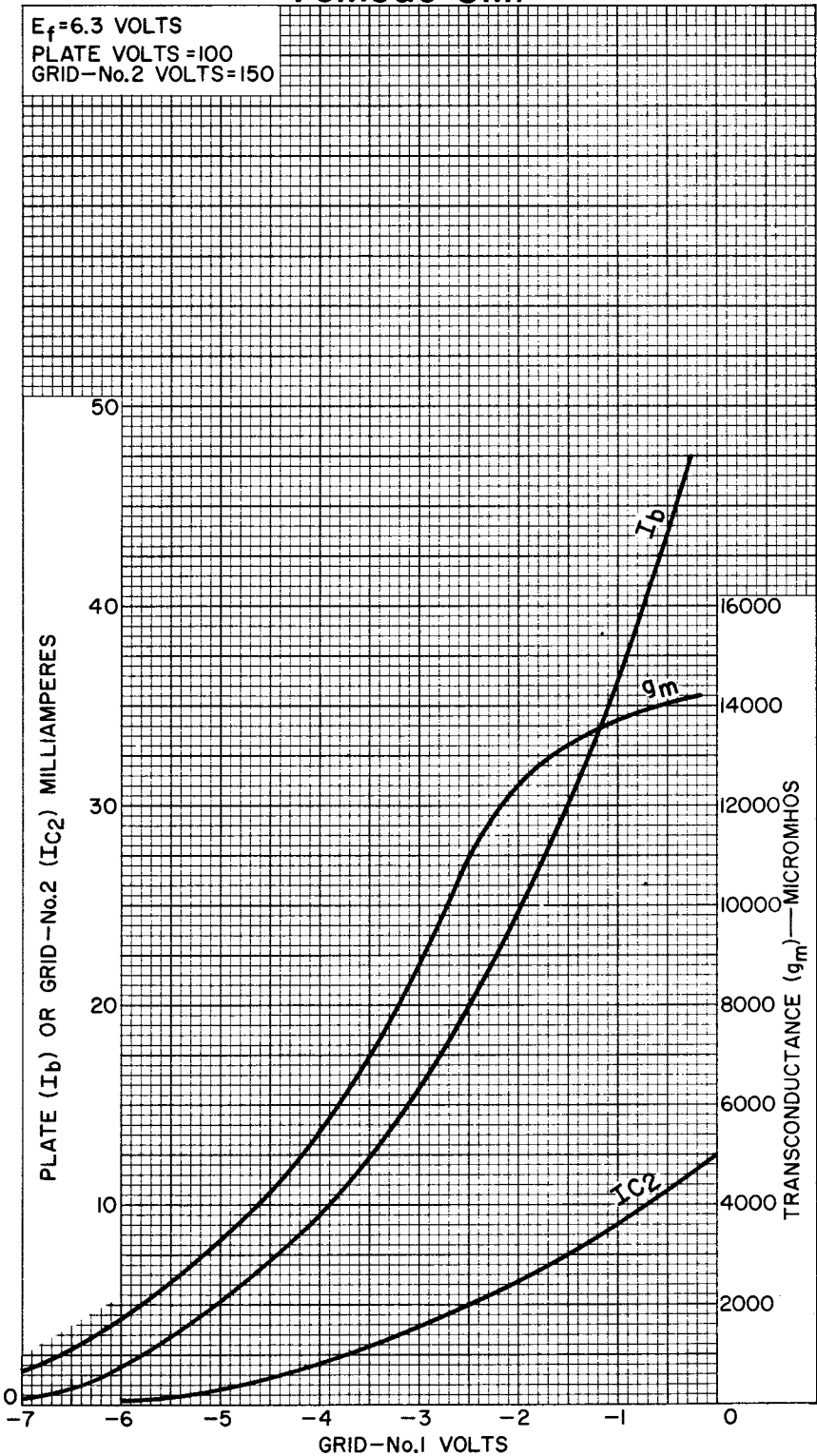


AVERAGE CHARACTERISTICS Pentode Unit



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AVERAGE CHARACTERISTICS Pentode Unit



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