6HB7

Medium-Mu Triode—Sharp-Cutoff Pentode

9-PIN MINIATURE TYPE

For VHF Oscillator-Mixer Service in TV Receivers

Electrical:

Heater Characteristics and Ratings:		
Voltage (AC or DC)	6.3 ± 0.6[a]	volts
Current at heater volts = 6.3	0.450[b]	amp
Warm-up time (Average)	11	sec
Peak heater-cathode voltage:		
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	1.9	pf
Input: G_T to ($K+G3_P+IS,H$)	3.0	pf
Output: P_T to ($K+G3_P+IS,H$)	1.9	pf
Pentode Unit:		
$G1_P$ to P_P	0.010 max.	pf
Input: $G1_P$ to ($K+G3_P+IS,G2_P,H$)	5.0	pf
Output: $G1_P$ to ($K+G3_P+IS,G2_P,H$)	3.4	pf
H to K[e]	3.8	pf

Characteristics, Class A_1 Amplifier:

	Triode Unit	*Pentode Unit*	
Plate Supply Voltage	150	125	volts
Grid-No.2 Supply Voltage	–	125	volts
Grid-No.1 Supply Voltage	0	-1	volts
Cathode Resistor	56	–	ohms
Amplification Factor	40	–	
Plate Resistance (Approx.)	5000	200000	ohms
Transconductance	8500	6400	μmhos
Plate Current	18	12	ma
Grid-No.2 Current	–	4	ma
Grid-No.1 Voltage (Approx.) for plate μa = 10	-12	-9	volts

Mechanical:

Operating Position	Any
Type of Cathode	Coated Unipotential
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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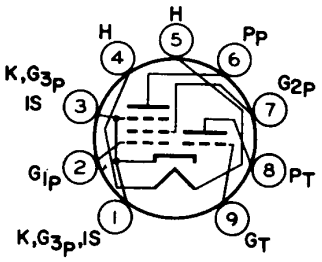
Base. . . . . .Small-Button Noval 9-Pin (JEDEC No.E9-1)
Basing Designation for BOTTOM VIEW. 9QA

Pin 1 - Cathode, Pentode Grid No.3, Internal Shield
Pin 2 - Pentode Grid No.1
Pin 3 - Same as Pin 1
Pin 4 - Heater
Pin 5 - Heater
Pin 6 - Pentode Plate
Pin 7 - Pentode Grid No.2
Pin 8 - Triode Plate
Pin 9 - Triode Grid



AMPLIFIER — Class A_1

Maximum Ratings, *Design-Maximum Values:*

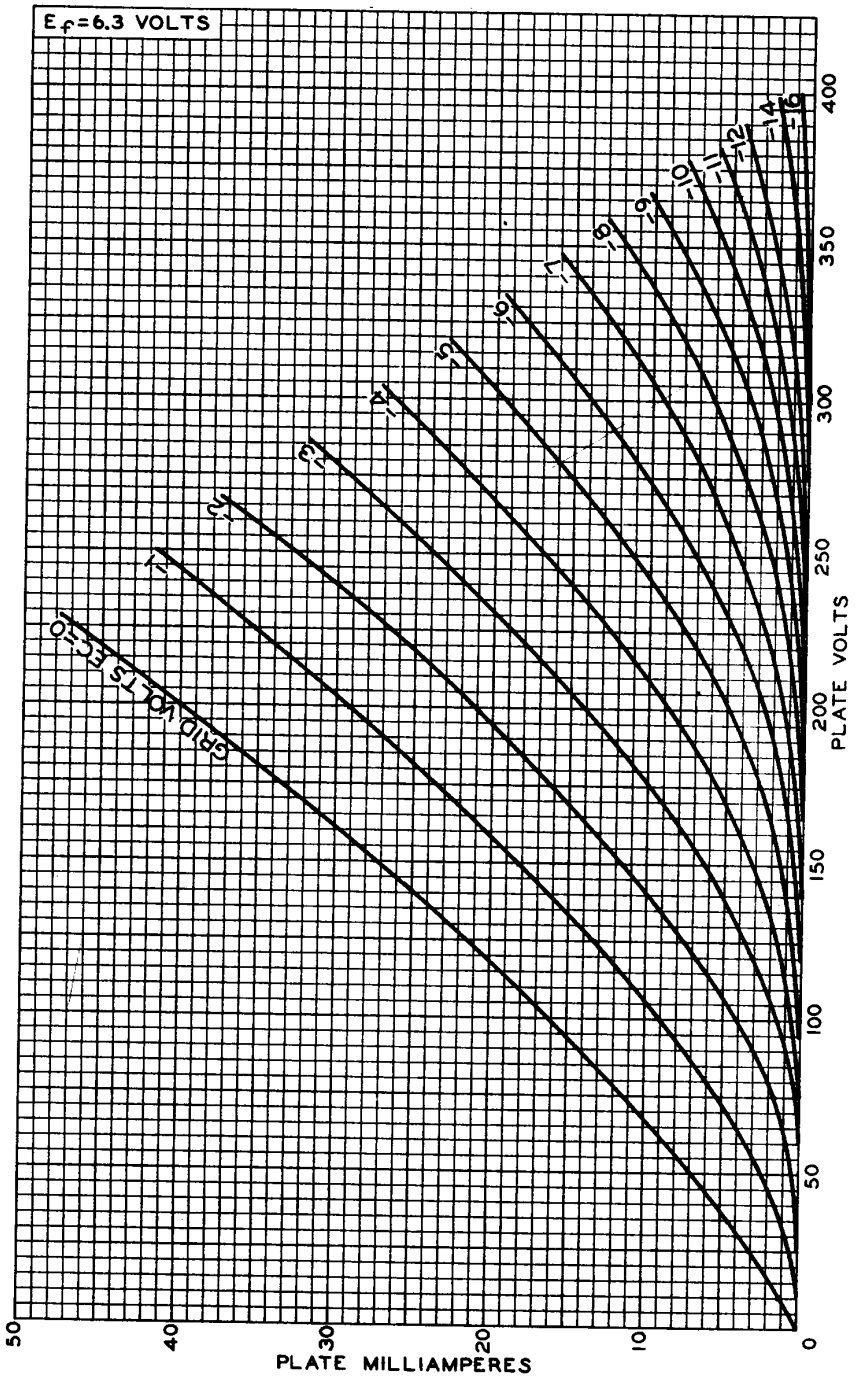
	Triode Unit	*Pentode Unit*	
Plate Voltage	330 max.	330 max.	volts
Grid-No.2 (Screen-Grid) Supply Voltage.	–	330 max.	volts
Grid-No.2 Voltage	See *Grid-No.2 Input Rating Chart* at front of Receiving Tube Section		
Grid-No.1 (Control-Grid) Voltage: Positive-bias value	0 max.	0 max.	volts
Grid-No.2 Input: For grid-No.2 voltages up to 165 volts	–	0.55 max.	watt
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	2.5 max.	3.1 max.	watts

Maximum Circuit Values:

Grid-No.1 Circuit Resistance:			
For fixed-bias operation. . .	0.5 max.	0.25 max.	megohm
For cathode-bias operation. .	1.0 max.	0.5 max.	megohm

[a] For parallel heater operation.
[b] For series heater operation current must be limited to 0.450 ± 0.030 amperes.
[c] The dc component must not exceed 100 volts.
[d] With external shield JEDEC No.315 connected to cathode except as noted.
[e] With external shield JEDEC No.315 connected to ground.

AVERAGE PLATE CHARACTERISTICS
Triode Unit



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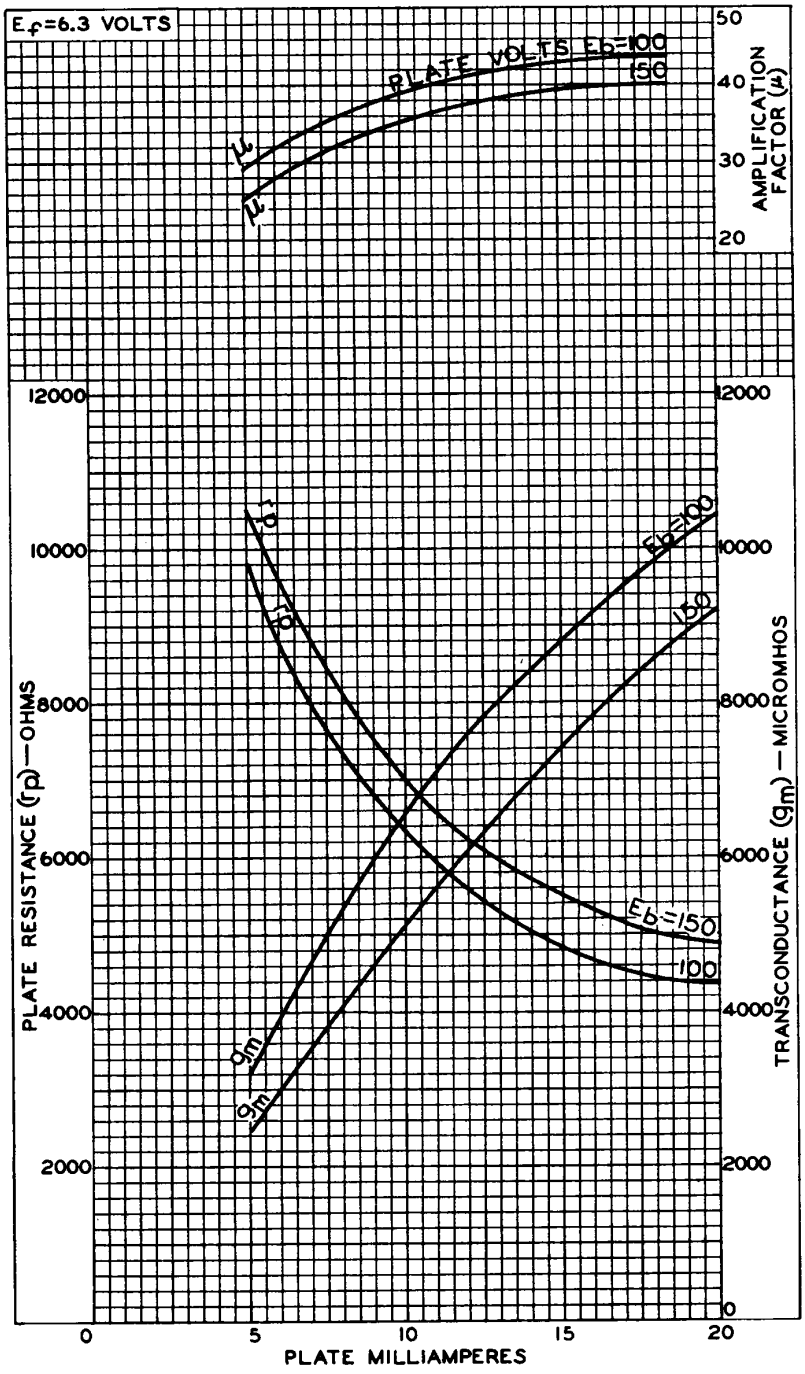
AVERAGE CHARACTERISTICS
Triode Unit



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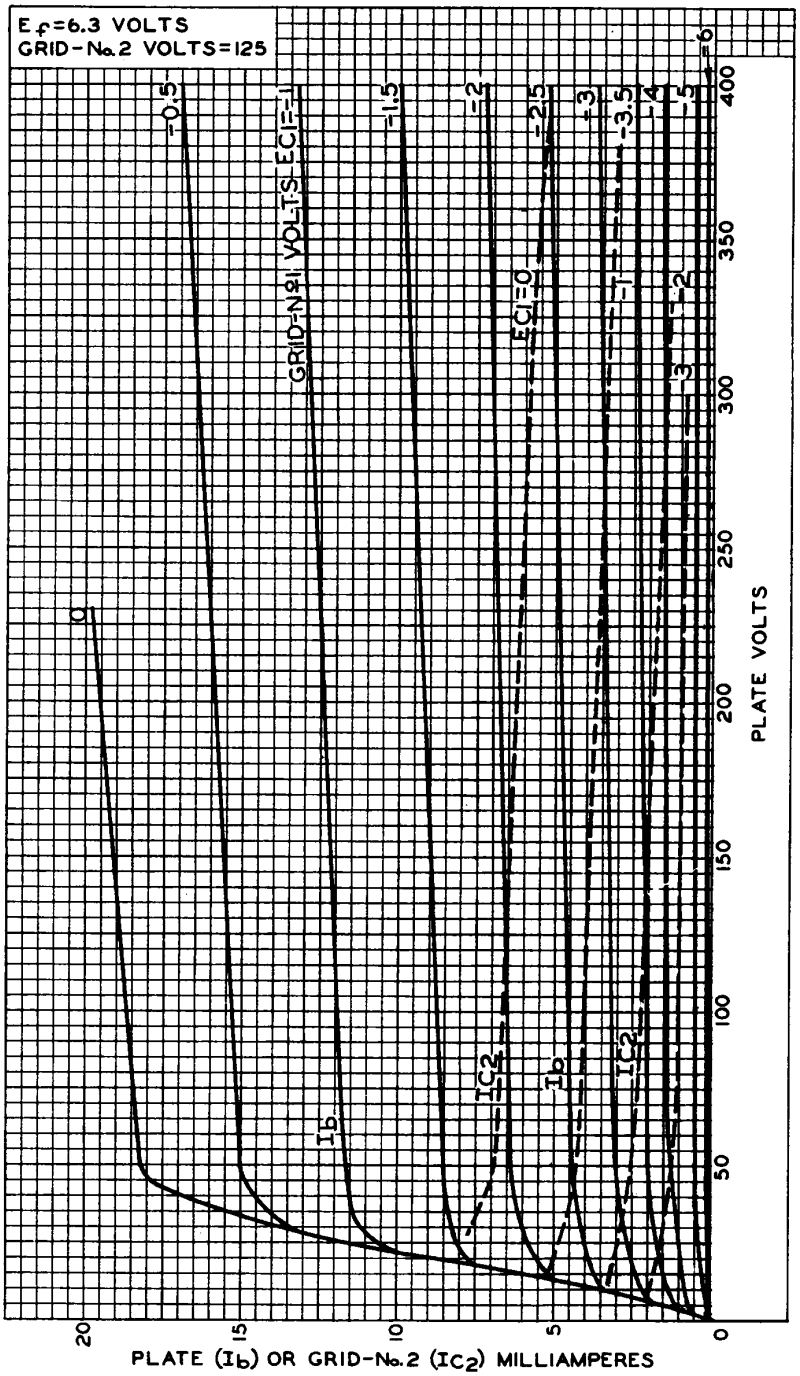
AVERAGE CHARACTERISTICS
Pentode Unit



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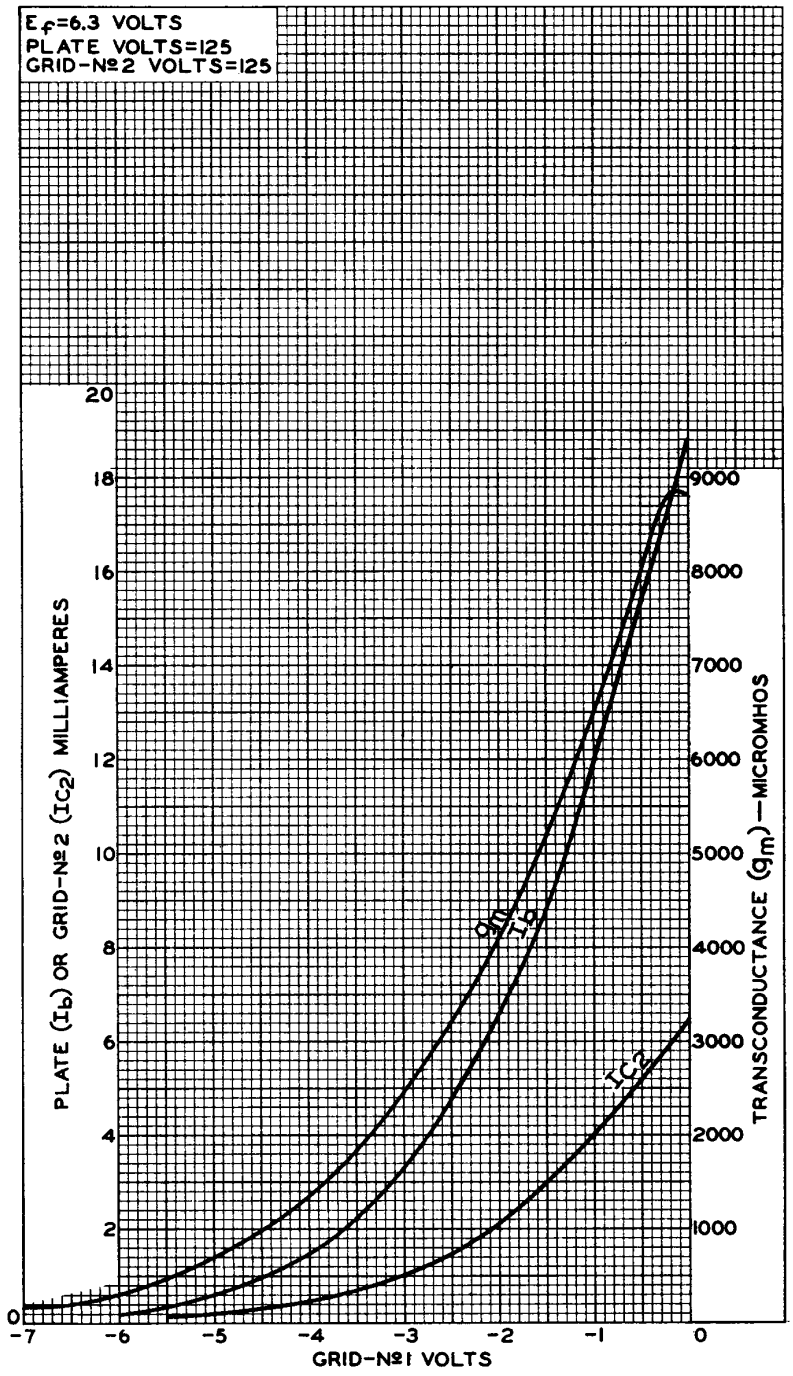
AVERAGE CHARACTERISTICS
Pentode Unit



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