

High-Mu Triode—Sharp-Cutoff Pentode

Pentode Unit Has Two Independent Control Grids

9-PIN MINIATURE TYPE

With Heater Having Controlled Warm-Up Time

GENERAL DATA

Electrical:

Heater Characteristics and Ratings (*Design-Maximum Values*):Voltage (AC or DC) . . . 6.3^a 6.3 ± 0.6 voltsCurrent 0.600 ± 0.040 0.600^b ampWarm-up time
(Average) 11 — secPeak heater-cathode
voltage:Heater negative with
respect to cathode . . . 200 max. voltsHeater positive with
respect to cathode . . . 200^c max. voltsDirect Interelectrode Capacitances:^d

Triode Unit:

Grid to plate 2.2 μ fGrid to cathode & internal shield,
and heater 2.8 μ fPlate to cathode & internal shield,
and heater 2.2 μ f

Pentode Unit:

Grid No.1 to plate 0.1 max. μ fGrid No.1 to cathode & internal
shield, grid No.3, grid No.2,
and heater 9.5 μ fGrid No.1 to grid No.3 0.5 μ fGrid No.3 to plate 2.2 μ fGrid No.3 to cathode & internal
shield, plate, grid No.2, grid
No.1, and heater 7.0. μ fCharacteristics, Class A₁ Amplifier:

	Triode Unit	Pentode Unit	
Plate Supply Voltage	200	150	volts
Grid-No.3 Supply Voltage	—	0	volts
Grid-No.2 Supply Voltage	—	100	volts
Grid-No.1 Supply Voltage	-2	0	volts
Cathode Resistor	—	180	ohms
Amplification Factor	70	—	
Plate Resistance (Approx.)	17500	100000	ohms
Transconductance, Grid No.1 to Plate	4000	4400	μ mhos
Transconductance, Grid No.3 to Plate	—	600	μ mhos



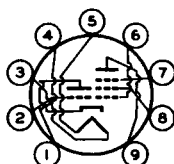
6KA8

Plate Current.	4	4	ma
Grid-No.2 Current.	-	2.8	ma
Grid-No.1 Supply Voltage (Approx.) for plate μ a =			
10	-5	-	volts
20	-	-4	volts
Grid-No.3 Supply Voltage (Approx.) for plate μ a = 20.	-	-7	volts

Mechanical:

Operating Position	Any
Type of Cathode.	Coated Unipotential
Maximum Overall Length	2-5/8"
Maximum Seated Length.	2-3/8"
Length, Base Seat to Bulb Top (Excluding tip).	2" $\pm$ 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	.9PV

- Pin 1 - Triode
Plate
- Pin 2 - Triode
Grid
- Pin 3 - Cathode,
Internal
Shield
- Pin 4 - Heater
- Pin 5 - Heater



- Pin 6 - Pentode
Grid No.1
- Pin 7 - Pentode
Grid No.3
- Pin 8 - Pentode
Grid No.2
- Pin 9 - Pentode
Plate

GATED AGC AMPLIFIER & NOISE INVERTER

Pentode Unit

For operation in a 525-line, 30-frame system*

Maximum Ratings, Design-Maximum Values:

PLATE VOLTAGE.	300 max.	volts
PEAK POSITIVE-PULSE PLATE VOLTAGE ^f	600 max.	volts
GRID-No.3 (CONTROL-GRID) VOLTAGE:		
Negative-bias value.	100 max.	volts
Positive-bias value.	0 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:		
Negative-bias value.	50 max.	volts
Positive-bias value.	0 max.	volts
GRID-No.2 INPUT:		
For grid-No.2 voltages up to 150 volts.	1.1 max.	watts



For grid-No.2 voltages
between 150 volts and
300 volts. See *Grid-No.2 Input Rating Chart*
at front of Receiving Tube Section

PLATE DISSIPATION. 2 max. watts

Maximum Circuit Values:

Grid-No.3-Circuit Resistance 0.68 max. megohm

Grid-No.1-Circuit Resistance:

For fixed-bias operation 0.5 max. megohm

For cathode-bias operation 1 max. megohm

AMPLIFIER — Class A₁

Triode Unit

Maximum Ratings, Design-Maximum Values:

PLATE VOLTAGE. 300 max. volts

GRID VOLTAGE:

Negative-bias value. 50 max. volts

Positive-bias value. 0 max. volts

PLATE DISSIPATION. 1.1 max. watts

Maximum Circuit Values:

Grid-Circuit Resistance:

For fixed-bias operation 0.25 max. megohm

For cathode-bias operation 1 max. megohm

^a At heater amperes = 0.600.

^b At heater volts = 6.3.

^c The dc component must not exceed 100 volts.

^d Without external shield.

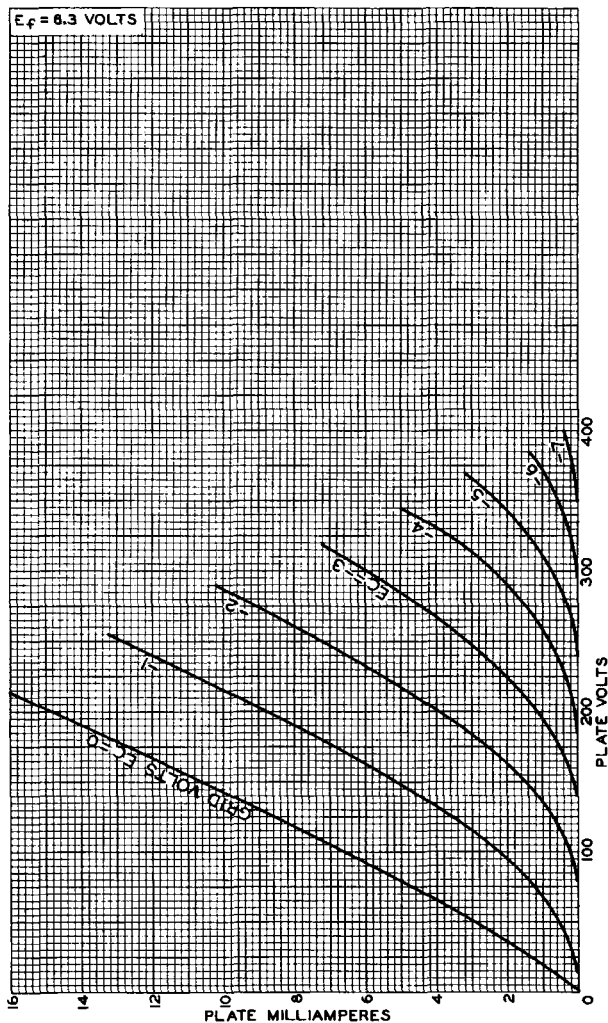
^e As described in "Standards of Good Engineering Practice Concerning Television Broadcast Stations," Federal Communications Commission.

^f This rating is applicable when the duration of the voltage pulse does not exceed 15 per cent of one horizontal scanning cycle. In a 525-line, 30-frame system, 15 per cent of one horizontal scanning cycle is 10 microsecond.



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AVERAGE PLATE CHARACTERISTICS Triode Unit

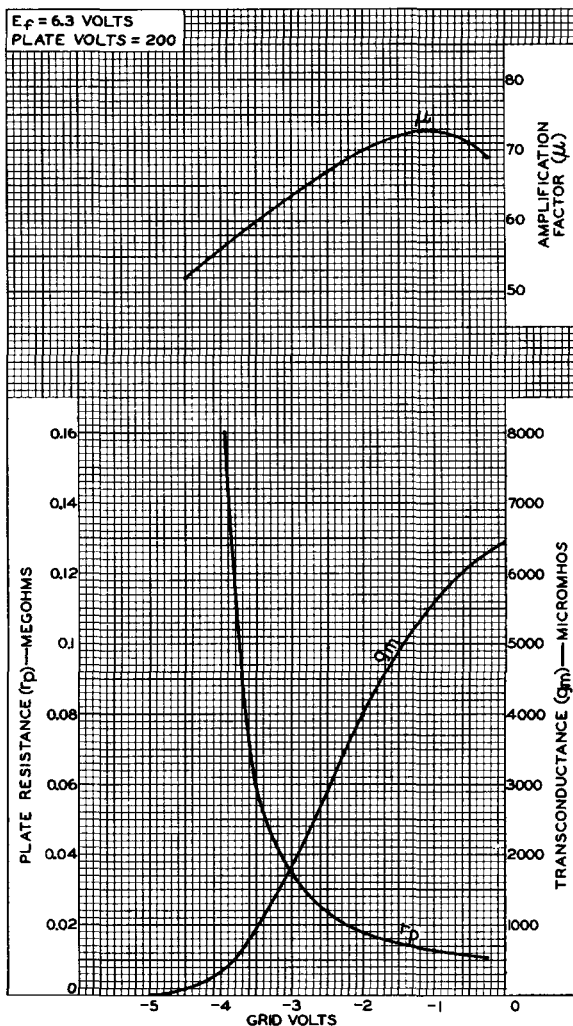


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AVERAGE CHARACTERISTICS

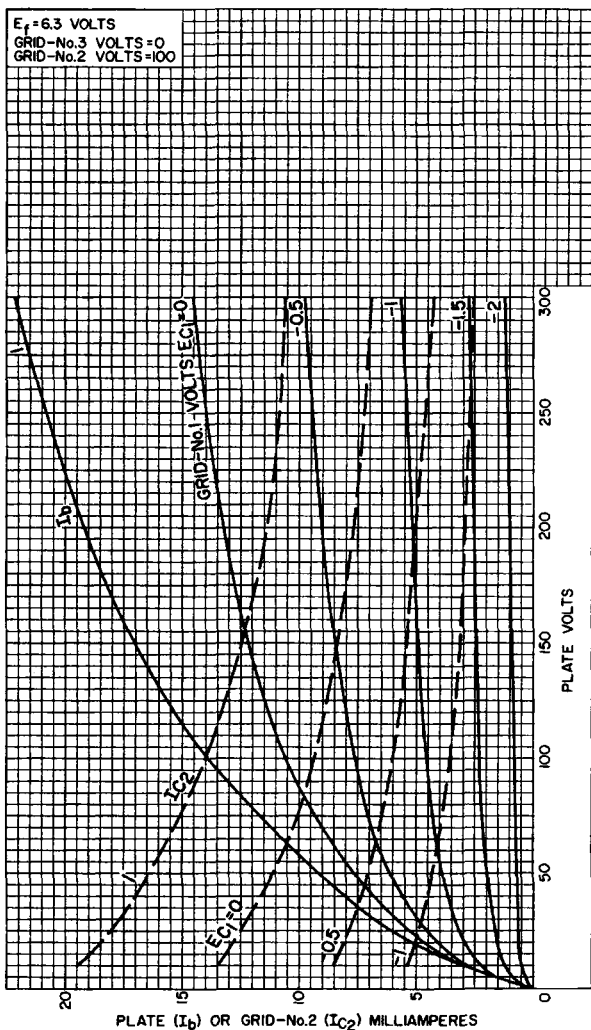
Triode Unit



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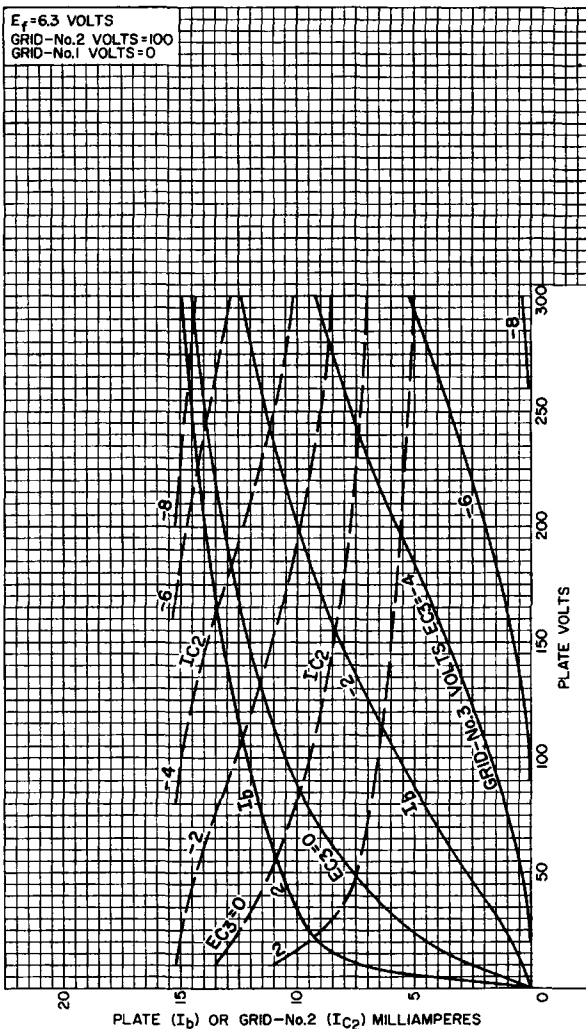
AVERAGE CHARACTERISTICS Pentode Unit



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AVERAGE CHARACTERISTICS

Pentode Unit

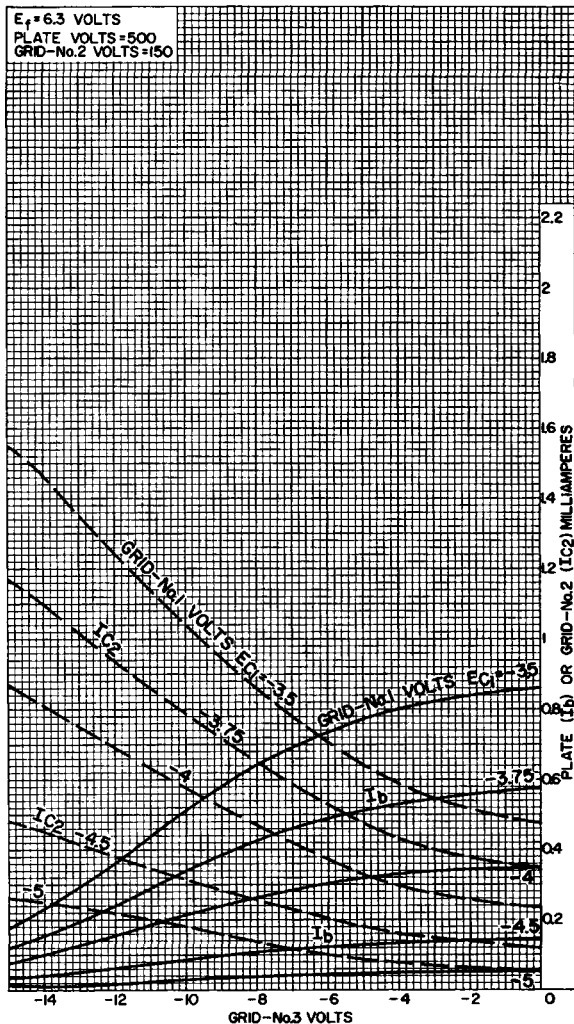


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AVERAGE CHARACTERISTICS Pentode Unit

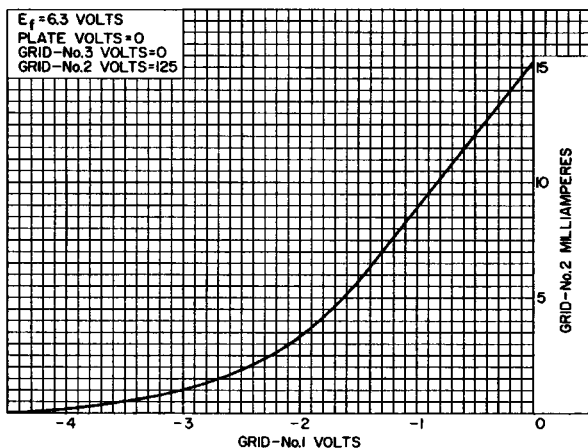


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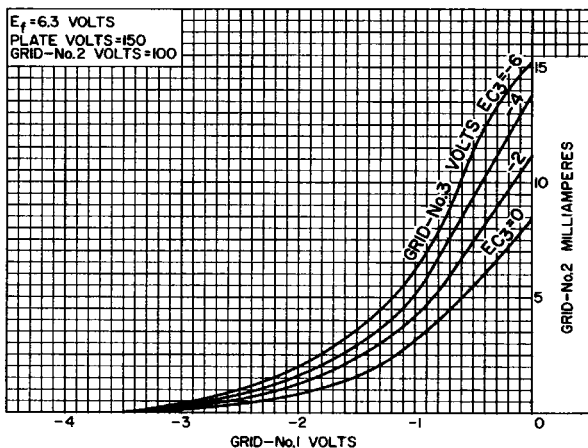


AVERAGE CHARACTERISTICS

Pentode Unit



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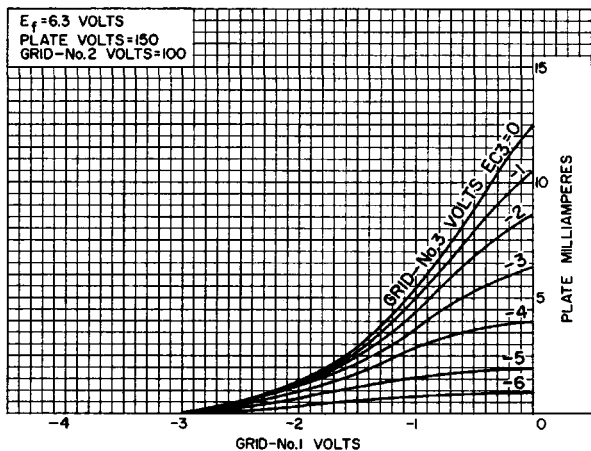


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AVERAGE CHARACTERISTICS Pentode Unit



92CS-11614

