

High-Mu Triode—Beam Power Tube

NOVAR TYPE

For Combined Vertical-Deflection Oscillator
and Amplifier Service in TV Receivers

Electrical:

Heater Characteristics and Ratings:

Voltage (AC or DC)	6.3 ± 0.6	volts
Current at heater volts = 6.3	1.100	amp
Peak heater-cathode voltage (Each unit):		
Heater negative with respect to cathode	200 max.	volts
Heater positive with respect to cathode	200 ^a max.	volts

Direct Interelectrode Capacitances (Approx.):^b

Triode Unit:

Grid to plate	0.44	pf
G _T to (K _T , H)	15.0	pf
P _T to (K _T , H)	7.0	pf

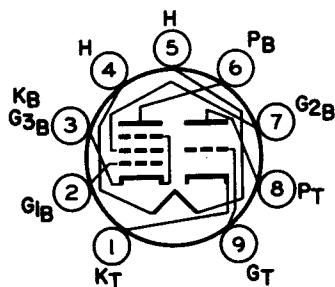
Beam Power Unit:

Grid No.1 to plate	0.048	pf
G _{1B} to (K _B +G _{3B} , G _{2B} , H)	2.6	pf
P _B to (K _B +G _{3B} , G _{2B} , H)	0.28	pf

Mechanical:

Operating Position	Any
Type of Cathodes	Coated Unipotential
Maximum Overall Length	2.380"
Seated Length	1.750" to 2.000"
Diameter	1.062" to 1.188"
Dimensional Outline	See <i>General Section</i>
Bulb	T9
Base	Small Button Novar 9-Pin with Exhaust Tip (JEDEC No. E9-89)
Basing Designation for BOTTOM VIEW	9QT

- Pin 1—Triode Cathode
- Pin 2—Beam Power Grid No.1
- Pin 3—Beam Power Cathode &
Grid No.3
- Pin 4—Heater
- Pin 5—Heater
- Pin 6—Beam Power Plate
- Pin 7—Beam Power Grid No.2
- Pin 8—Triode Plate
- Pin 9—Triode Grid



Characteristics, Class A₁ Amplifier:

	Triode Unit	Beam Power Unit			
Plate Voltage	250	50	135	120	volts
Grid-No.2 Voltage	—	120	120	Connected to plate at socket	
Grid-No.1 Voltage	—3	0	—10	—10	volts
Amplification Factor	64	—	—	7	



6KY8A

	Triode Unit	Beam Power Unit		
Plate Resistance (Approx.).	40000	—	18000	— ohms
Transconductance.	1600	—	8400	— μ mhos
Plate Current	1.4	170 ^c	39	— ma
Grid-No.2 Current	—	20 ^c	3	— ma
Grid-No.1 Voltage (Approx.) for plate ma = 1	—	—	-24	— volts

VERTICAL-DEFLECTION OSCILLATOR (Triode Unit)

Maximum Ratings, Design-Maximum Values:

For operation in a 525-line, 30-frame system^d

DC Plate Voltage.	330 max.	volts
Peak Negative-Pulse Grid Voltage.	400 max.	volts
Peak Cathode Current.	77 max.	ma
Average Cathode Current	22 max.	ma
Plate Dissipation	1.5 max.	watts

Maximum Circuit Values:

Grid-Circuit Resistance:

For grid-resistor-bias operation. . . . 2.2 max. megohms

VERTICAL-DEFLECTION AMPLIFIER (Beam Power Unit)

Maximum Ratings, Design-Maximum Values:

For operation in a 525-line, 30-frame system^d

DC Plate Voltage.	300 max.	volts
Peak Positive-Pulse Plate Voltage ^e	2000 abs.max.	volts
DC Grid-No.2 (Screen-Grid) Voltage.	150 max.	volts
Peak Negative-Pulse Grid-No.1 (Control-Grid) Voltage.	250 max.	volts
Peak Cathode Current.	200 max.	ma
Average Cathode Current	70 max.	ma
Plate Dissipation	12 max.	watts
Grid-No.2 Input	1.9 max.	watts

Maximum Circuit Values:

Grid-No.1-Circuit Resistance:

For grid-resistor-bias operation. . . . 2.2 max. megohms

^a The dc component must not exceed 100 volts.

^b without external shield.

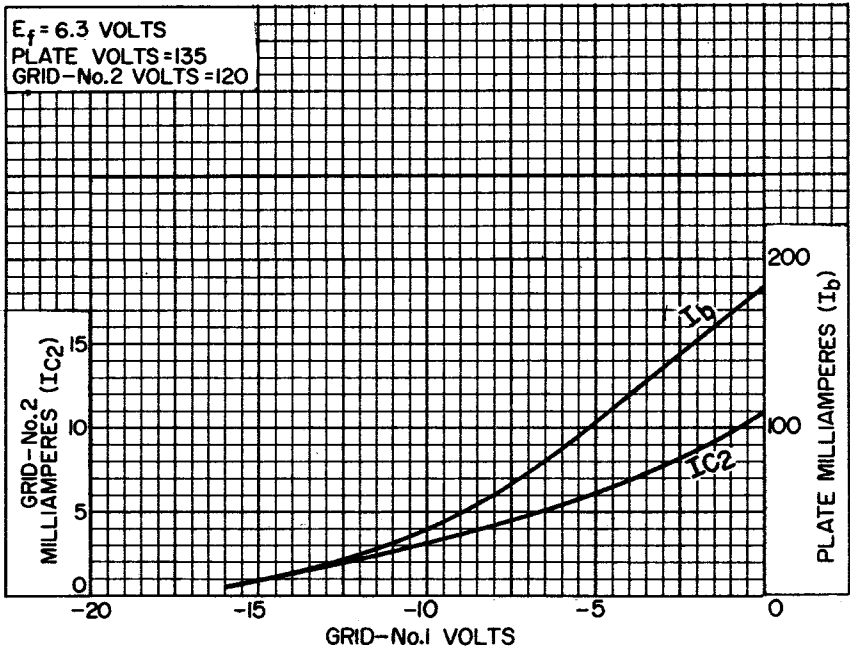
^c This value can be measured by a method involving a recurrent wave form such that the plate dissipation and grid-No.2 input will be kept within ratings in order to prevent damage to the tube.

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

^e This rating is applicable where the duration of the voltage pulse does not exceed 15 per cent of one vertical scanning cycle. In a 525-line, 30-frame system, 15 per cent of one vertical scanning cycle is 2.5 milliseconds.



AVERAGE CHARACTERISTICS Beam Power Unit

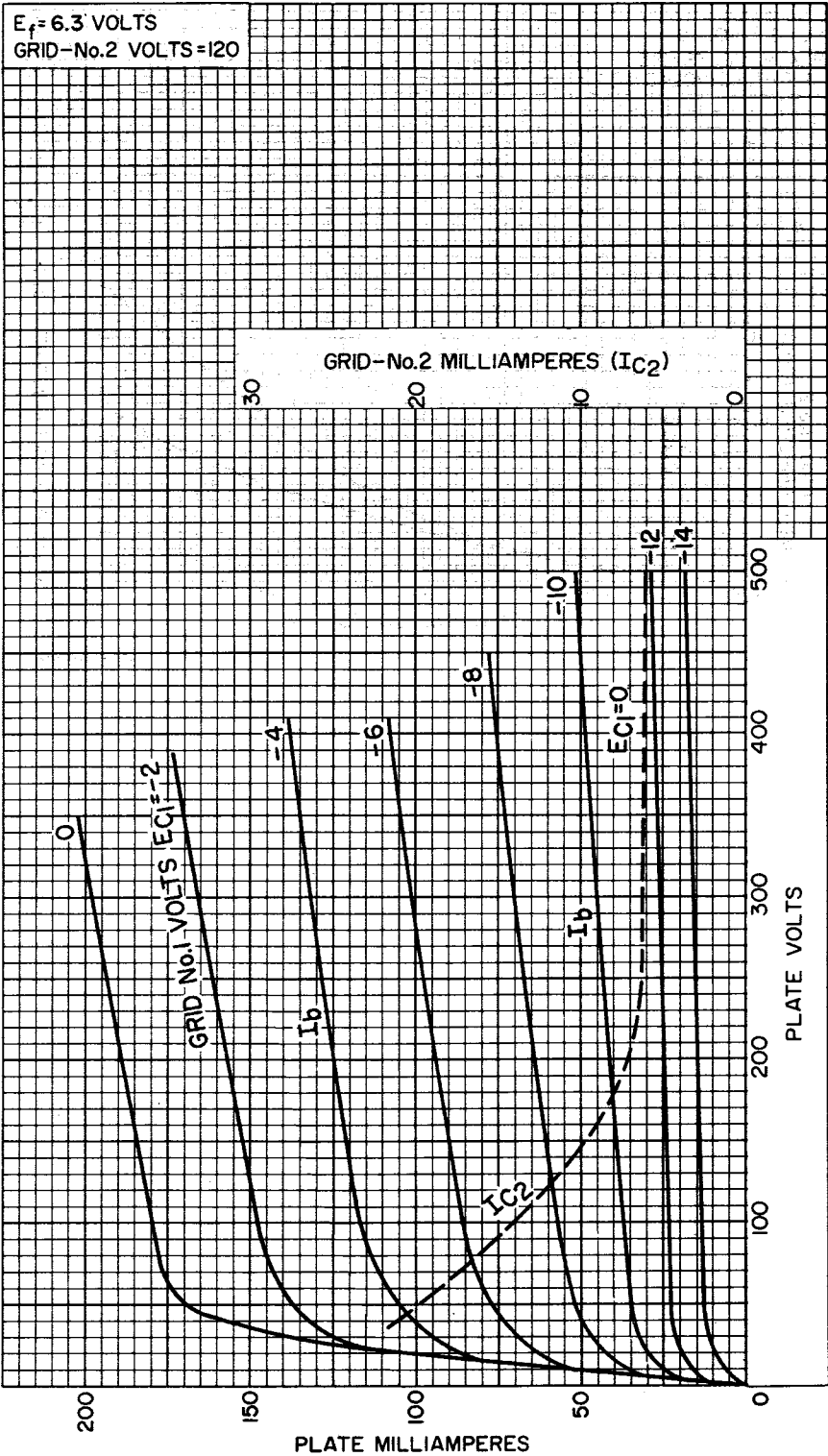


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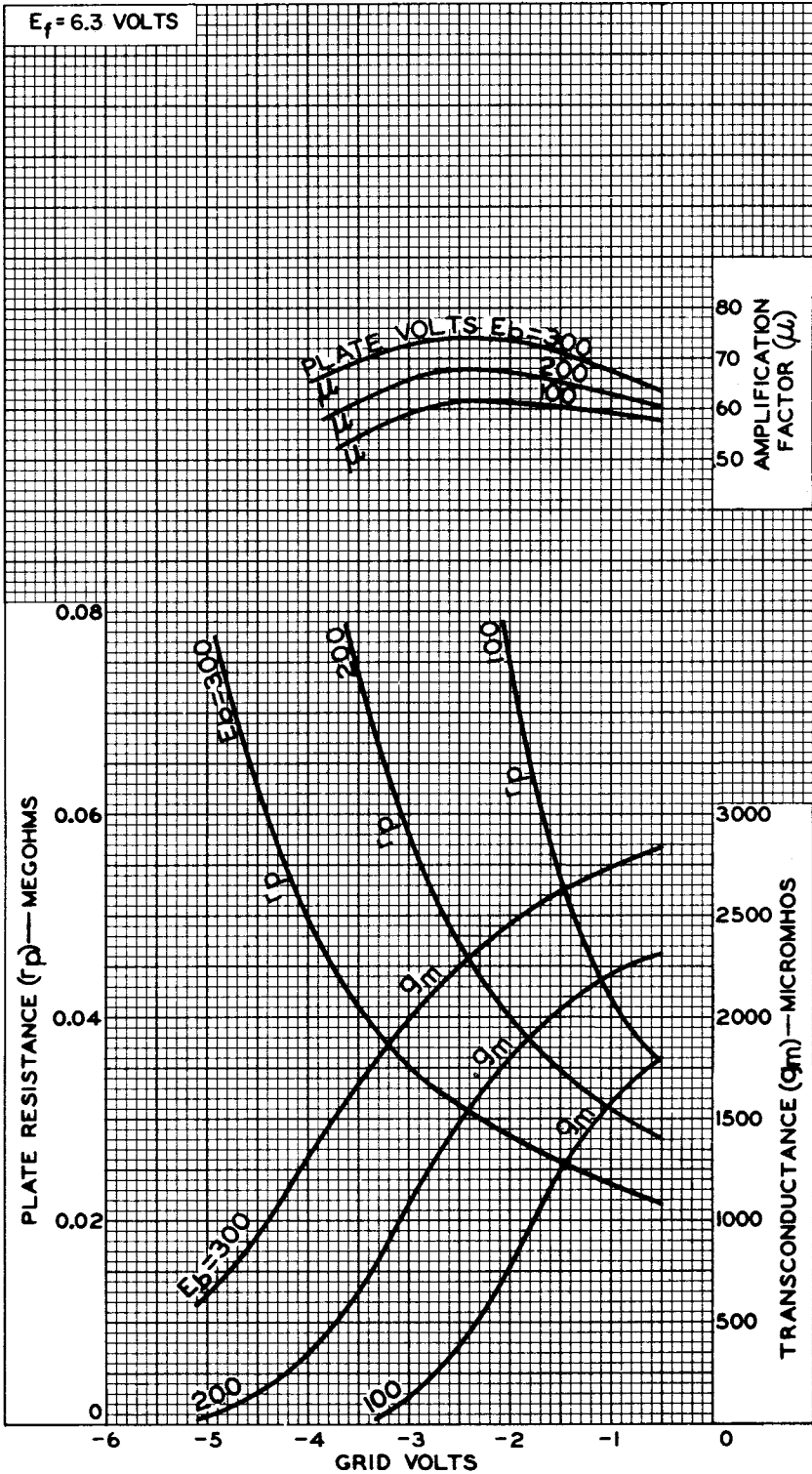
AVERAGE CHARACTERISTICS Beam Power Unit



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AVERAGE CHARACTERISTICS Triode Unit

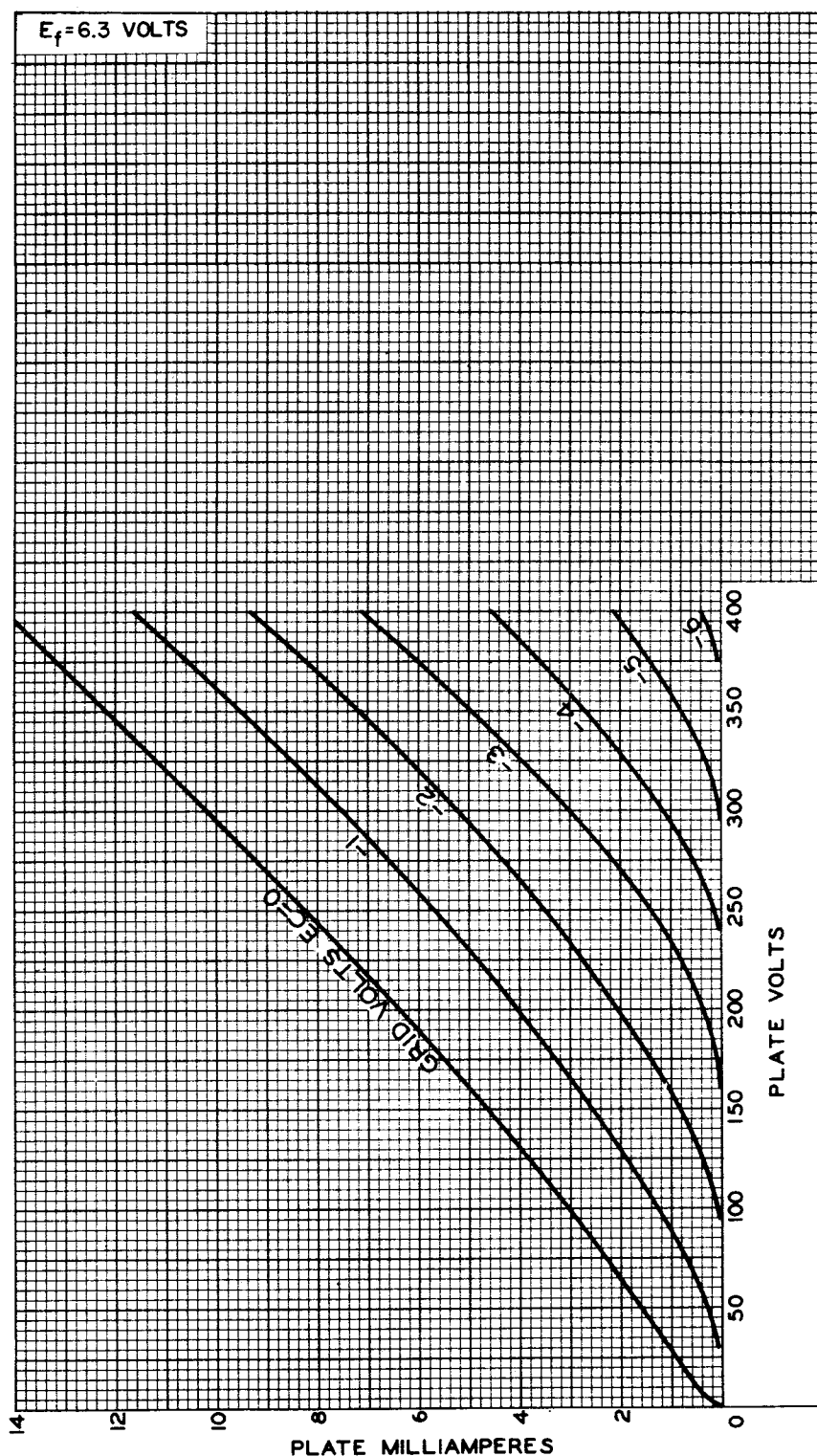


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AVERAGE CHARACTERISTICS Triode Unit



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