

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:

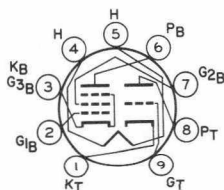
Grid No.1 to plate	0.048	pf
G _{1B} to (K _B +G _{3B} , G _{2B} , H)	2.6	pf
P _B to (K _B +G _{3B} , G _{2B} , H)	0.28	pf

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 General Section
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.

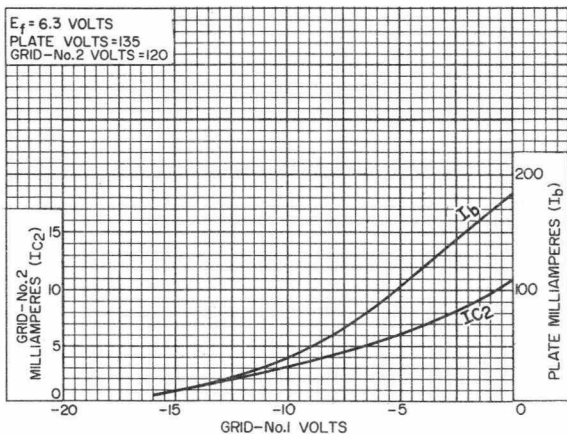
^c This value can be measured by a method involving a recurrent wave form such that the plate dissipation and grid-No.2 input will be kept within ratings in order to prevent damage to the tube.

^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

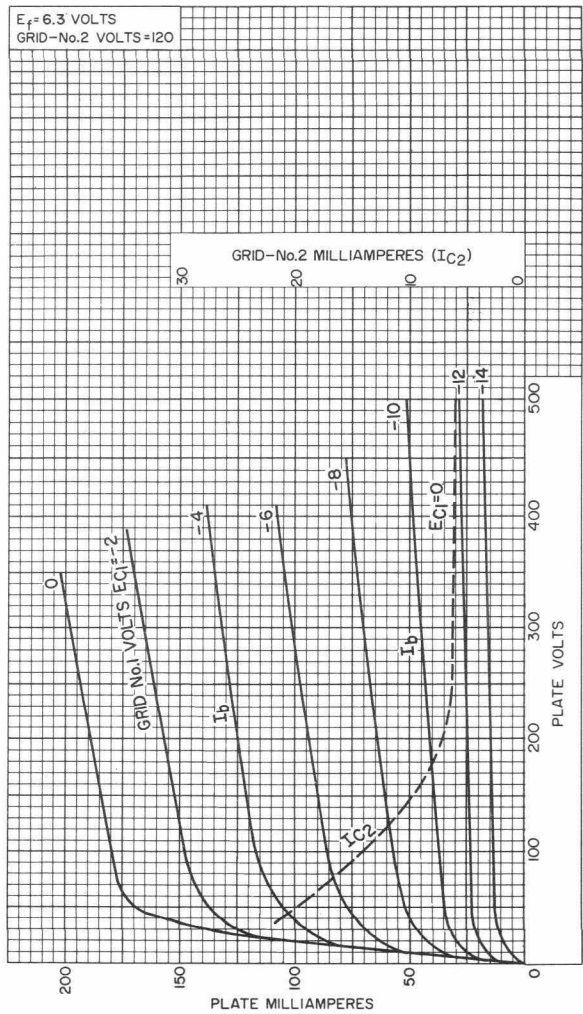


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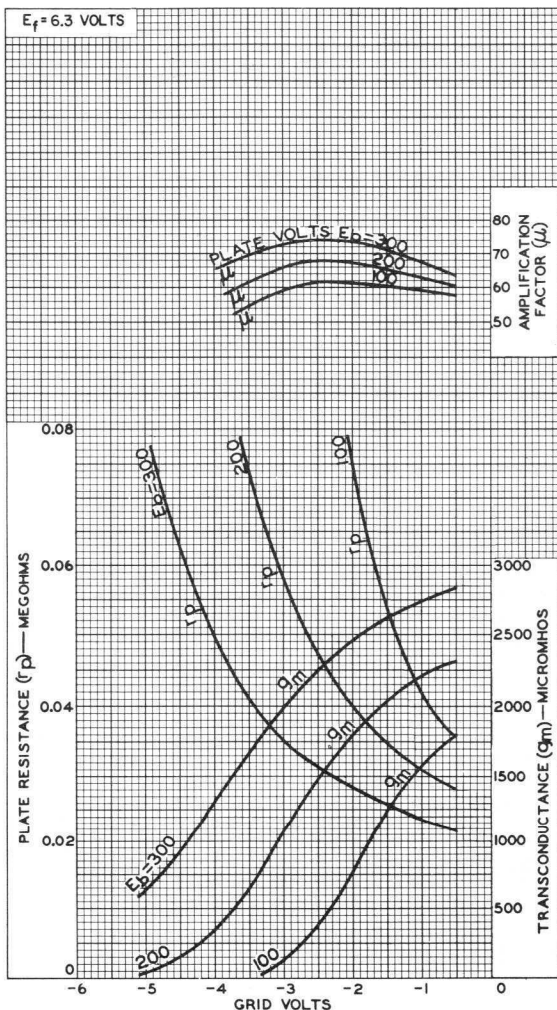
AVERAGE CHARACTERISTICS Beam Power Unit



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AVERAGE CHARACTERISTICS Triode Unit

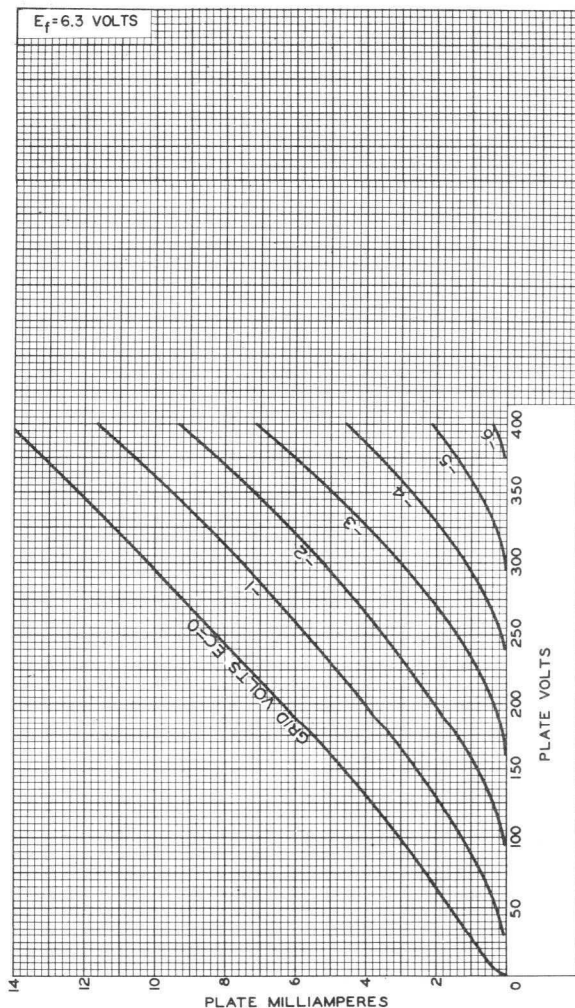


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AVERAGE CHARACTERISTICS Triode Unit



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