

Dual Triode

With High-Mu Unit and Low-Mu Unit

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 0.985 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 Inter-electrode Capacitances (Approx.):

	Unit No. 1	Unit No. 2	
Grid to plate.	4.6	9.0	pf
G to (K,H)	2.4	6.5	pf
P to (K,H)	0.26	1.4	pf

Mechanical:

Operating Position Any

Types of Cathodes Coated Unipotential

Maximum Overall Length 2.380"

Seated Length 1.750" to 2.000"

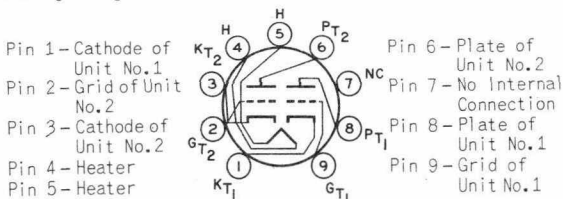
Diameter 1.062" to 1.188"

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 9QD



Characteristics, Class A₁ Amplifier:

	Unit No. 1	Unit No. 2	
Plate Voltage.	250	60 150 250	volts
Grid Voltage	-3	0 -20 -28	volts
Amplification Factor	64	- 5.4 -	
Plate Resistance (Approx.)	40000	- 750 -	ohms
Plate Current	1.4	95 50 10	ma
Grid-Voltage (Approx.) for			
plate μ = 10	-5.5	- - -	volts
100	-	- -45 -	volts



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VERTICAL-DEFLECTION OSCILLATOR

Values are for Unit No. 1

Maximum Ratings, Design-Maximum Values:

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

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

Maximum Circuit Values:

Grid-Circuit Resistance:

For grid-resistor-bias or cathode-bias operation	2.2	max.	megohms
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VERTICAL-DEFLECTION AMPLIFIER

Values are for Unit No. 2

Maximum Ratings, Design-Maximum Values Except as Noted:

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

DC Plate Voltage	330	max.	volts
Peak Positive-Pulse Plate Voltage (Absolute-maximum value) ^c	1500 ^d	max.	volts
Peak Negative-Pulse Grid Voltage	250	max.	volts
Cathode Current:			
Peak	175	max.	ma
Average.	50	max.	ma
Plate Dissipation.	11	max.	watts

Maximum Circuit Values:

Grid-Circuit Resistance:

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

^a The dc component must not exceed 100 volts.

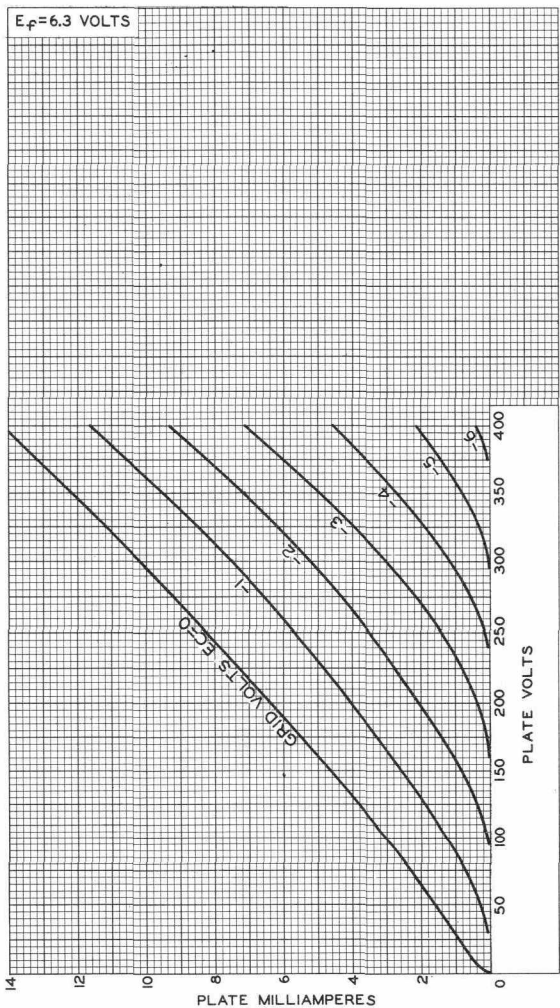
^b As described in "Standards of Good Engineering Practice Concerning Television Broadcast Stations" Federal Communications Commission.

^c 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.

^d Under no circumstances should this absolute-maximum value be exceeded.



AVERAGE PLATE CHARACTERISTICS Unit No.1

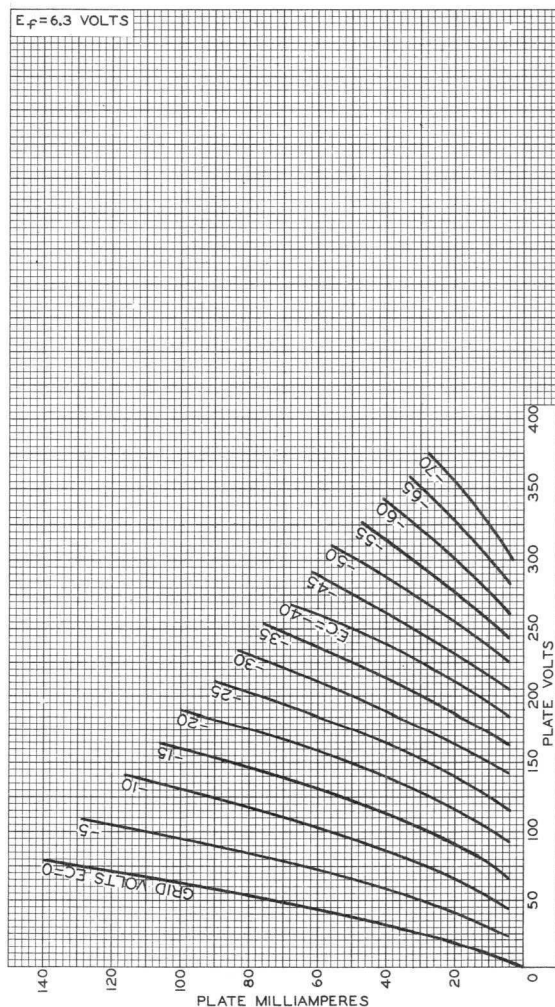


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AVERAGE PLATE CHARACTERISTICS Unit No.2

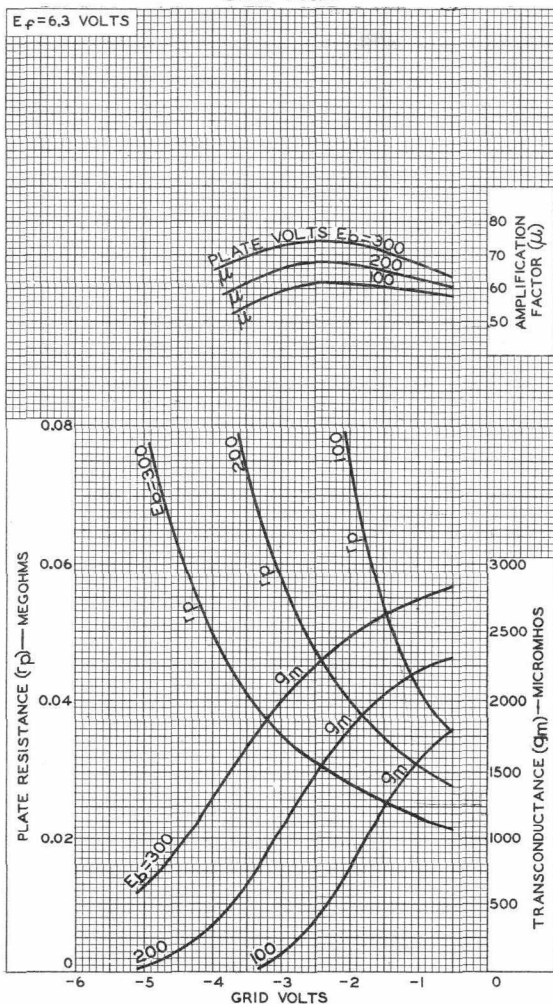


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AVERAGE CHARACTERISTICS Unit No.1

$E_f = 6.3$ VOLTS

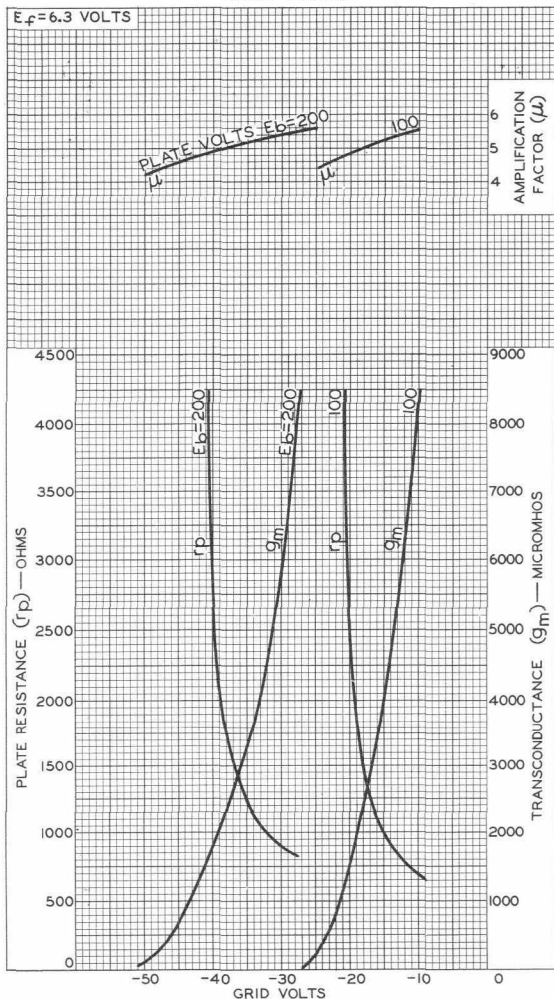


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AVERAGE CHARACTERISTICS Unit No.2



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