

Dual Triode With High-Mu Unit and Low-Mu Unit

GENERAL DATA

Electrical:

Heater, for Unipotential Cathodes:

Voltage (AC or DC)	6.3 ± 10%	volts
Current at 6.3 volts	0.925	amp

Direct Interelectrode Capacitances (Approx.):[▲]

	Unit No.1	Unit No.2	
Grid to plate	4.8	10	μf
Grid to cathode and heater. . .	2.2	7	μf
Plate to cathode and heater . .	0.6	1.8	μf

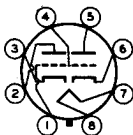
Characteristics, Class A₁ Amplifier:

	Unit No.1	Unit No.2	
Plate Voltage	250	150	volts
Grid Voltage.	-3	-20	volts
Amplification Factor.	68	5.4	
Plate Resistance (Approx.). . . .	40000	750	ohms
Transconductance.	1600	7200	μmhos
Plate Current	1.4	50	ma
Plate Current for plate volts = 60 and grid volts = 0	-	95	ma
Plate Current for grid volts = -28 Grid Voltage (Approx.) for plate μa = 10	-5.5	-	volts
Grid Voltage (Approx.) for plate μa = 100.	-	-45	volts

Mechanical:

Operating Position.	Any
Maximum Overall Length.	3"
Maximum Seated Length	2-7/16"
Maximum Diameter	1-9/32"
Bulb	T9
Base	Short Intermediate-Shell Octal 8-Pin with External Barriers (JEDEC Group 1, B8-58)
Basing Designation for BOTTOM VIEW.	8BD

Pin 1-Grid of Unit No.2	Pin 5-Plate of Unit No.1
Pin 2-Plate of Unit No.2	Pin 6-Cathode of Unit No.1
Pin 3-Cathode of Unit No.2	Pin 7-Heater
Pin 4-Grid of Unit No.1	Pin 8-Heater



VERTICAL-DEFLECTION OSCILLATOR

Values are for Unit No.1

Maximum Ratings, Design-Maximum Values:

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

DC PLATE VOLTAGE.	330 max.	volts
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PEAK NEGATIVE-PULSE GRID VOLTAGE.	400	max.	volts
CATHODE CURRENT:			
Peak.	77	max.	ma
Average	22	max.	ma
PLATE DISSIPATION	1.5	max.	watts
PEAK HEATER-CATHODE VOLTAGE:			
Heater negative with respect to cathode.	200	max.	volts
Heater positive with respect to cathode.	200*	max.	volts

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:

For operation in a 525-line, 30-frame system[•]

DC PLATE VOLTAGE.	330	max.	volts
PEAK POSITIVE-PULSE PLATE VOLTAGE [♦]	1500	max.	volts
PEAK NEGATIVE-PULSE GRID VOLTAGE.	250	max.	volts
CATHODE CURRENT:			
Peak.	175	max.	ma
Average	50	max.	ma
PLATE DISSIPATION	10	max.	watts
PEAK HEATER-CATHODE VOLTAGE:			
Heater negative with respect to cathode.	200	max.	volts
Heater positive with respect to cathode.	200*	max.	volts

Maximum Circuit Values:

Grid-Circuit Resistance:

For grid-resistor-bias or cathode-bias operation.	2.2	max.	megohms
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▲ Without external shield.

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

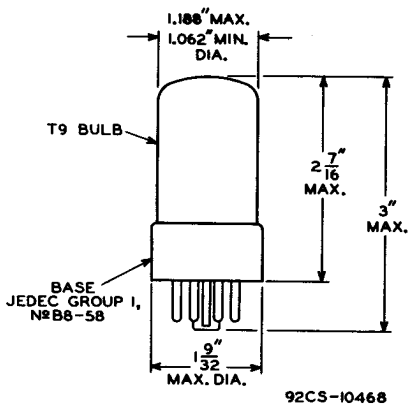
* The dc component must not exceed 100 volts.

♦ 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.

OPERATING CONSIDERATIONS

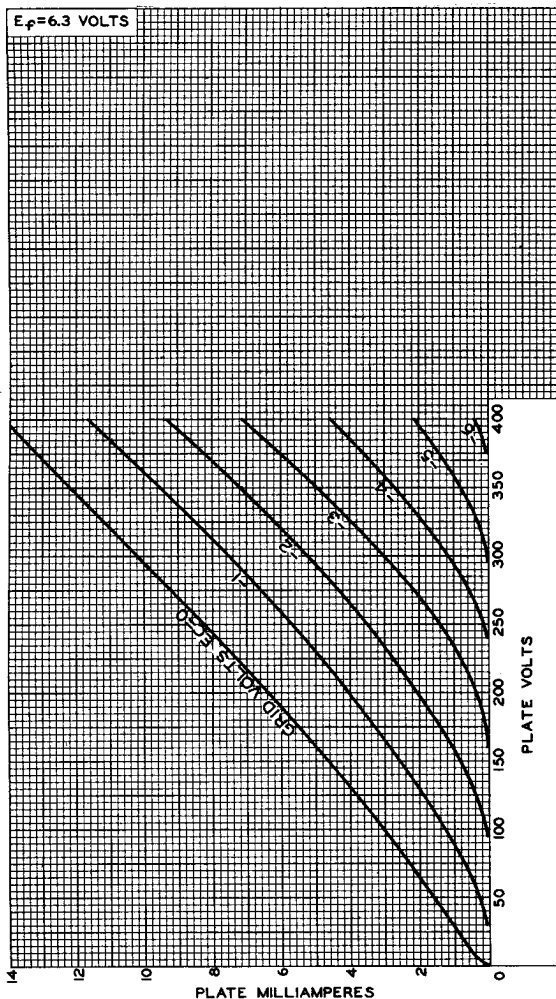
The *bulb* becomes hot during operation. To insure adequate cooling, therefore, it is essential that free circulation of air be provided.





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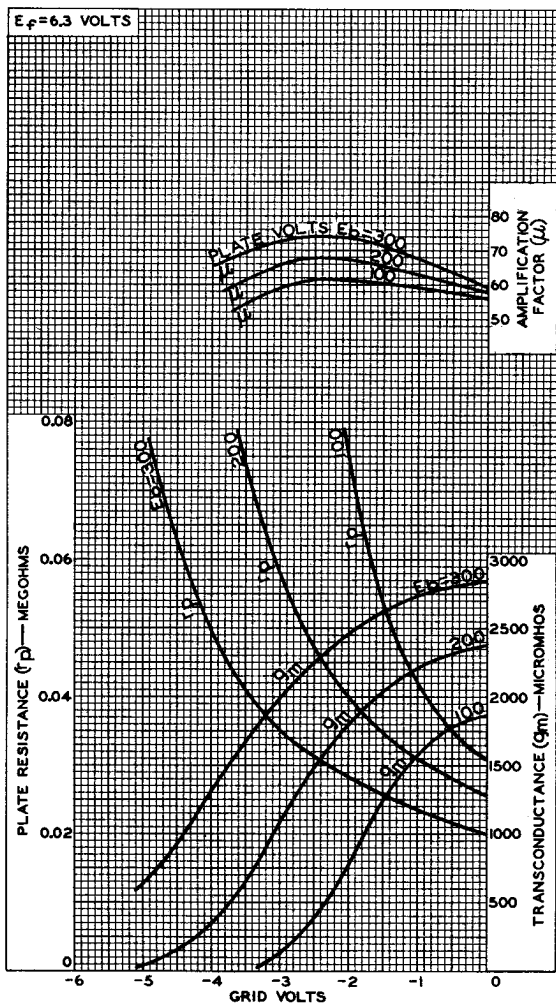
AVERAGE PLATE CHARACTERISTICS Unit No.1



92CM-9912



AVERAGE CHARACTERISTICS Unit No.1

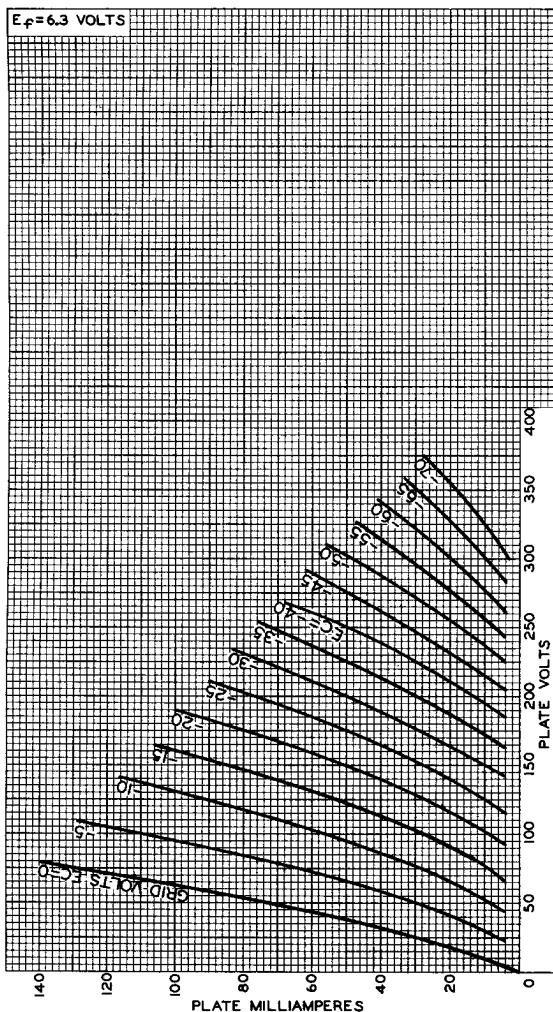


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AVERAGE PLATE CHARACTERISTICS Unit No. 2



92CM-10466



Dual Triode

With High-Mu Unit and Low-Mu Unit

GENERAL DATA

Electrical:

Heater, for Unipotential Cathodes:

Voltage (AC or DC)	6.3 ± 10%	volts
Current at 6.3 volts	0.925	amp

Direct Interelectrode Capacitances (Approx.):^a

	Unit No.1	Unit No.2	
Grid to plate	4.8	10	μμf
Grid to cathode and heater. . .	2.2	7	μμf
Plate to cathode and heater . .	0.6	1.8	μμf

Characteristics, Class A₁ Amplifier:

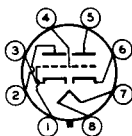
	Unit No.1	Unit No.2	
Plate Voltage	250	150	volts
Grid Voltage	-3	-20	volts
Amplification Factor	68	5.4	
Plate Resistance (Approx.) . . .	40000	750	ohms
Transconductance	1600	7200	μmhos
Plate Current	1.4	50	ma
Plate Current for plate volts = 60 and grid volts = 0	-	95	ma
Plate Current for grid volts = -28 .	-	10	ma
Grid Voltage (Approx.) for plate μa = 10	-5.5	-	volts
Grid Voltage (Approx.) for plate μa = 100	-	-45	volts

Mechanical:

Operating Position	Any
Maximum Overall Length	2-7/8" ←
Maximum Seated Length	2-5/16" ←
Maximum Diameter	1-9/32"
Bulb	T9
Base	Short Intermediate-Shell Octal 8-Pin with External Barriers (JEDEC Group 1, B8-58)

Basing Designation for BOTTOM VIEW 8BD

Pin 1 - Grid of Unit No.1	Pin 5 - Plate of Unit No.1
Pin 2 - Plate of Unit No.2	Pin 6 - Cathode of Unit No.1
Pin 3 - Cathode of Unit No.2	Pin 7 - Heater
Pin 4 - Grid of Unit No.1	Pin 8 - Heater



← Indicates a change.



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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
PEAK HEATER-CATHODE VOLTAGE:			
Heater negative with respect to cathode.	200	max.	volts
Heater positive with respect to cathode.	200 ^c	max.	volts

Maximum Circuit Values:

Grid-Circuit Resistance:

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

VERTICAL-DEFLECTION AMPLIFIER

Values are for Unit No. 2

Maximum Ratings, Design-Maximum Values:

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

DC PLATE VOLTAGE.	330	max.	volts
PEAK POSITIVE-PULSE PLATE VOLTAGE ^d	1500	max.	volts
PEAK NEGATIVE-PULSE GRID VOLTAGE.	250	max.	volts
CATHODE CURRENT:			
Peak.	175	max.	ma
Average	50	max.	ma
PLATE DISSIPATION	10	max.	watts
PEAK HEATER-CATHODE VOLTAGE:			
Heater negative with respect to cathode.	200	max.	volts
Heater positive with respect to cathode.	200 ^c	max.	volts

Maximum Circuit Values:

Grid-Circuit Resistance:

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

^a Without external shield.

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

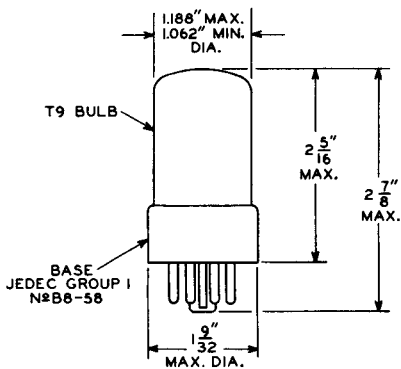
^c The dc component must not exceed 100 volts.

^d 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.

OPERATING CONSIDERATIONS

The bulb becomes hot during operation. To insure adequate cooling, therefore, it is essential that free circulation of air be provided.



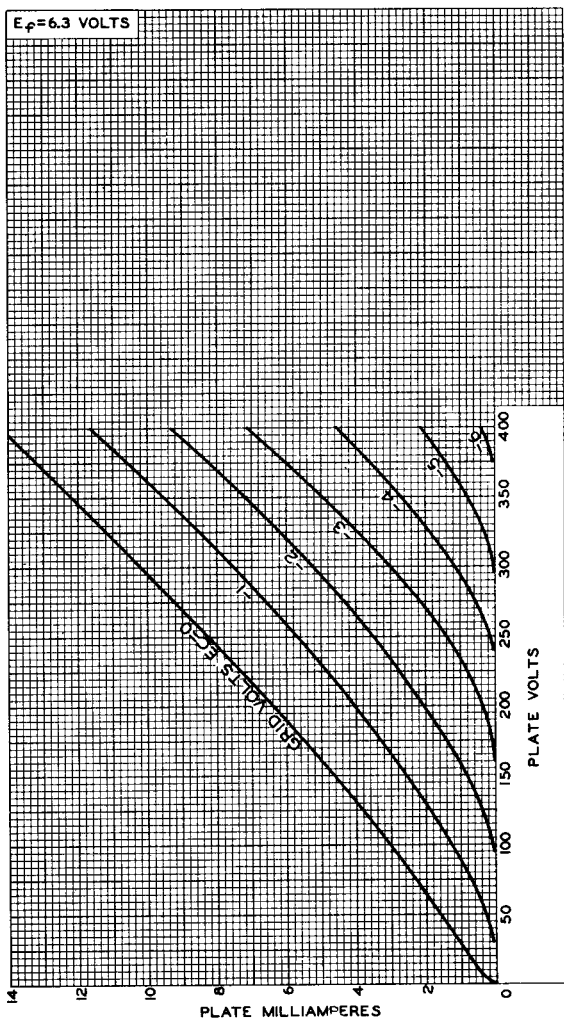


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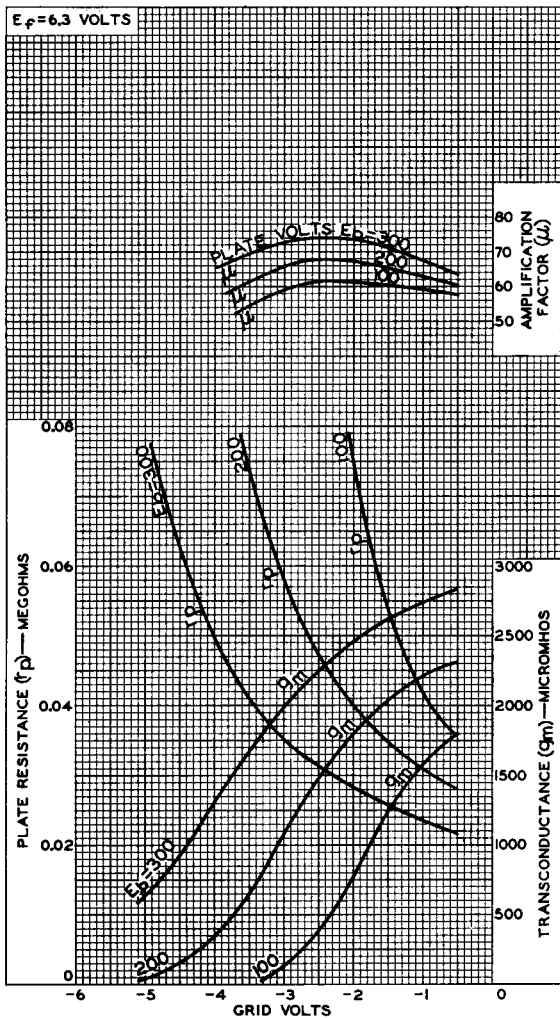
AVERAGE PLATE CHARACTERISTICS Unit No.1



92CM-9912



AVERAGE CHARACTERISTICS Unit No.1

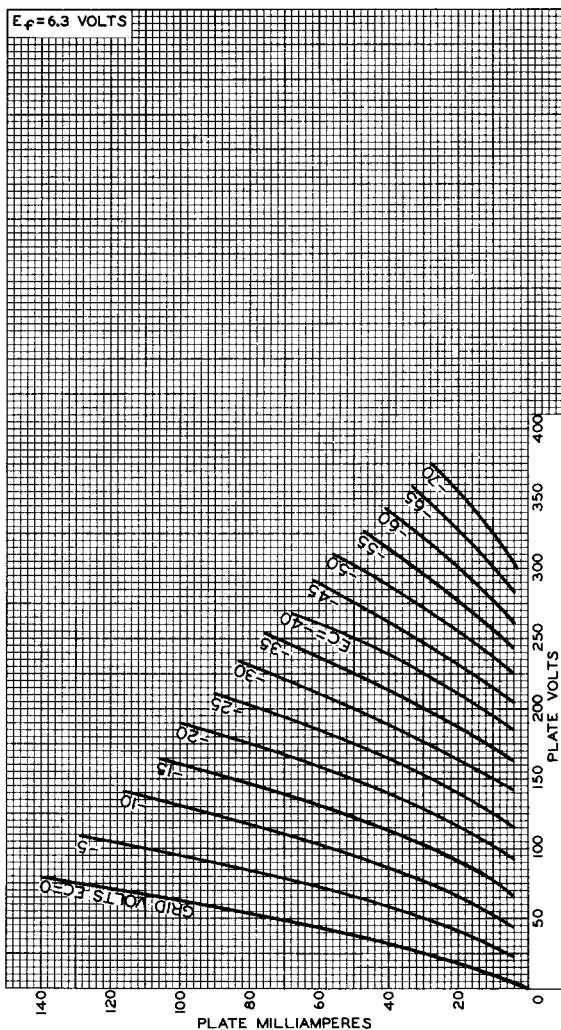


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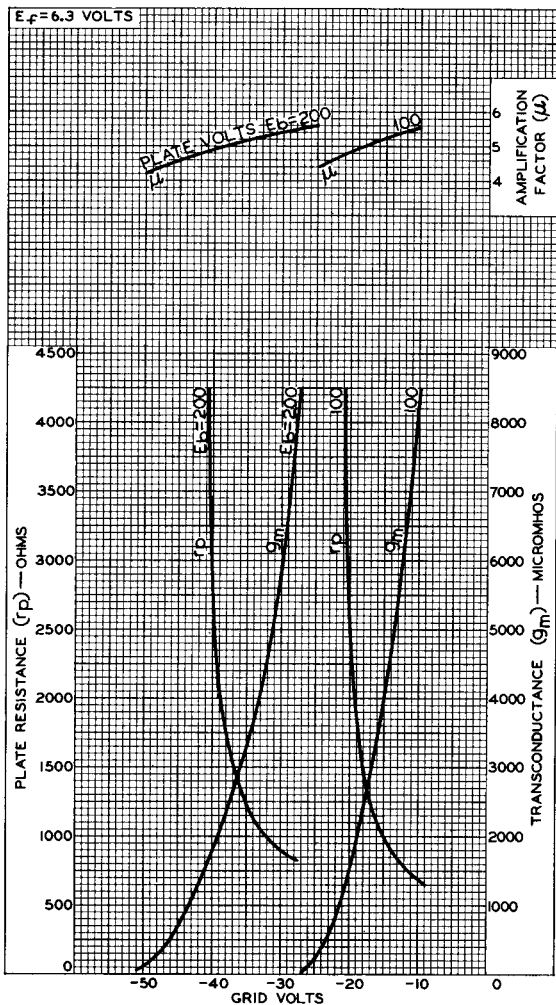
AVERAGE PLATE CHARACTERISTICS Unit No.2



92CM-10466



AVERAGE CHARACTERISTICS Unit No. 2



92CM-10467

