

Medium-Mu Twin Triode

9-PIN MINIATURE TYPE

With Heater Having Controlled Warm-Up Time

GENERAL DATA

Electrical:

Heater, for Unipotential Cathodes:

Voltage (AC or DC)	6.3	volts
Current	$0.6 \pm 6\%$	amp
Warm-up time (Average)	11	sec

Direct Interelectrode Capacitances (Approx.):^a

	Unit No. 1	Unit No. 2	
Grid to plate	3.6	3.8	μf
Grid to cathode and heater	2.4	2.4	μf
Plate to cathode and heater	0.34	0.26	μf
Plate of unit No. 1 to plate of unit No. 2		1	μf

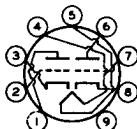
Characteristics, Class A₁ Amplifier (Each Unit):

Plate Voltage	90	250	volts
Grid Voltage	0	-8	volts
Amplification Factor	20	20	
Plate Resistance (Approx.)	6700	7700	ohms
Transconductance	3000	2600	μmhos
Plate Current	10	9	ma
Plate Current for grid volts = -12.5	-	1.3	ma
Grid Voltage (Approx.) for plate $\mu\text{a} = 10$	-7	-18	volts

Mechanical:

Operating Position	Any
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	9LP

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



Pin 6 - Plate of
Unit No. 1
Pin 7 - Grid of
Unit No. 1
Pin 8 - Cathode of
Unit No. 1
Pin 9 - No Con-
nection



AMPLIFIER — Class A₁

Values are for Each Unit

Maximum Ratings, Design-Maximum Values:

PLATE VOLTAGE.	330	max.	volts
GRID VOLTAGE:			
Positive-bias value.	0	max.	volts
CATHODE CURRENT.	22	max.	ma
PLATE DISSIPATION:			
Either plate.	4	max.	watts
Both plates (Both units operating) . . .	5.7	max.	watt
PEAK HEATER-CATHODE VOLTAGE:			
Heater negative with respect to cathode. .	200	max.	volts
Heater positive with respect to cathode. .	200 ^b	max.	volts

Typical Operation as Resistance-Coupled Amplifier:

See *RESISTANCE-COUPLED AMPLIFIER CHART No. 29*
at front of this Section

Maximum Circuit Values:

Grid-Circuit Resistance:			
For fixed-bias operation	1	max.	megohm

HORIZONTAL-DEFLECTION OSCILLATOR

Values are for Each Unit

Maximum Ratings, Design-Maximum Values:

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

DC PLATE VOLTAGE.	330	max.	volts
PEAK NEGATIVE-PULSE GRID VOLTAGE.	660	max.	volts
CATHODE CURRENT:			
Peak.	330	max.	ma
Average	22	max.	ma
PLATE DISSIPATION:			
Either plate.	4	max.	watts
Both plates (Both units operating). . .	5.7	max.	watts
PEAK HEATER-CATHODE VOLTAGE:			
Heater negative with respect to cathode .	200	max.	volts
Heater positive with respect to cathode .	200 ^b	max.	volts

Maximum Circuit Values:

Grid-Circuit Resistance	2.2	max.	megohms
-----------------------------------	-----	------	---------

VERTICAL-DEFLECTION OSCILLATOR

Values are for Each Unit

Maximum Ratings, Design-Maximum Values:

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

DC PLATE VOLTAGE.	330	max.	volts
PEAK NEGATIVE-PULSE GRID VOLTAGE.	440	max.	volts
CATHODE CURRENT:			
Peak.	77	max.	ma
Average	22	max.	ma



PLATE DISSIPATION:

Either plate. 4 max. watts
Both plates (Both units operating). . . 5.7 max. watts

PEAK HEATER-CATHODE VOLTAGE:

Heater negative with
respect to cathode. 200 max. volts
Heater positive with
respect to cathode. 200^b max. volts

Maximum Circuit Values:

Grid-Circuit Resistance 2.2 max. megohms

^a Without external shield.

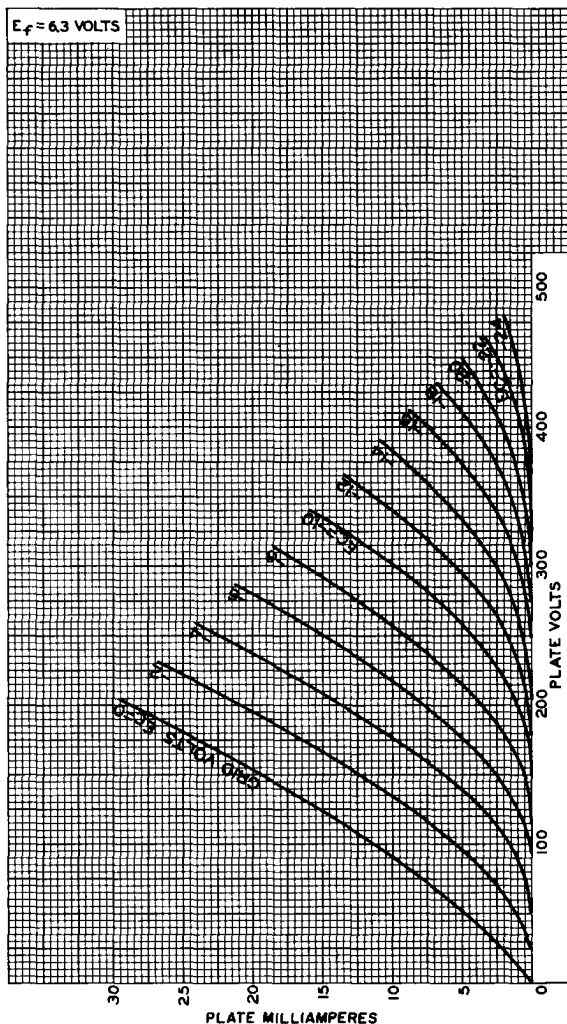
^b The dc component must not exceed 100 volts.

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



6FQ7

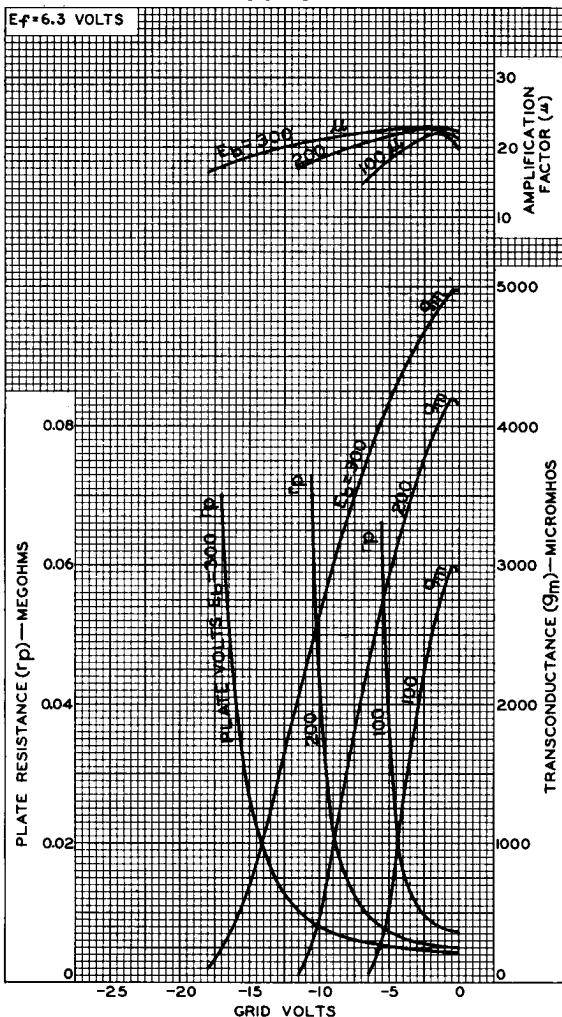
AVERAGE PLATE CHARACTERISTICS Each Unit



92CM-8442



AVERAGE CHARACTERISTICS Each Unit



92CM-8441R1

