

Medium-Mu Twin Triode

9-PIN MINIATURE TYPE

For TV Tuners Using Direct-Coupled Cathode-Drive Circuits

GENERAL DATA

Electrical:

Heater, for Unipotential Cathodes:

Voltage (AC or DC)	6.3	volts
Current	0.4	amp

Direct Interelectrode Capacitances:^a

	Unit No.1	Unit No.2	
Grid to plate	1.2	1.2	μf
Grid to cathode, internal shield, and heater.	2.6	—	μf
Cathode to grid, internal shield, and heater.	—	5	μf
Plate to cathode, internal shield, and heater.	1.2	—	μf
Plate to grid, internal shield, and heater.	—	2.2	μf
Plate to cathode.	0.12	0.12	μf
Heater to cathode	2.6	2.6	μf
Plate of unit No.1 to plate of unit No.2.	0.010 max.		μf
Plate of unit No.2 to plate and grid of unit No.1	0.024 max.		μf

Characteristics, Class A₁ Amplifier (Each Unit):

Plate Supply Voltage.	150	volts
Cathode Resistor.	220	ohms
Amplification Factor.	38	
Plate Resistance (Approx.).	5900	ohms
Transconductance.	6400	μmhos
Plate Current	9	ma
Grid Voltage (Approx.) for plate $\mu\text{a} = 100$	-6.5	volts

Mechanical:

Operating Position.	Any
Maximum Overall Length.	2-3/16"
Maximum Seated Length	1-15/16"
Length, Base Seat to Bulb Top (Excluding tip)	1-9/16" $\pm$ 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)

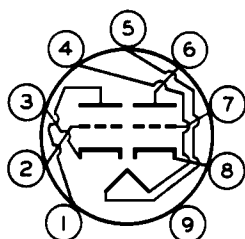
← Indicates a change.



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Basing Designation for BOTTOM VIEW. 9AJ

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 - Internal
Shield

AMPLIFIER — Class A₁

Values are for Each Unit

Maximum Ratings, Design-Center Values:

PLATE VOLTAGE	250 ^b max.	volts
PLATE DISSIPATION	2 max.	watts
CATHODE CURRENT	20 max.	ma

→ PEAK HEATER-CATHODE VOLTAGE:

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

Maximum Circuit Values:

Grid-Circuit Resistance	0.5 max.	megohm
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^a With external shield JEDEC No.315 connected to internal shield.

^b Under cutoff conditions in direct-coupled cathode-drive circuits, it is permissible for this voltage to be as high as 300 volts.

^c The dc component must not exceed 100 volts.

→ Indicates a change.

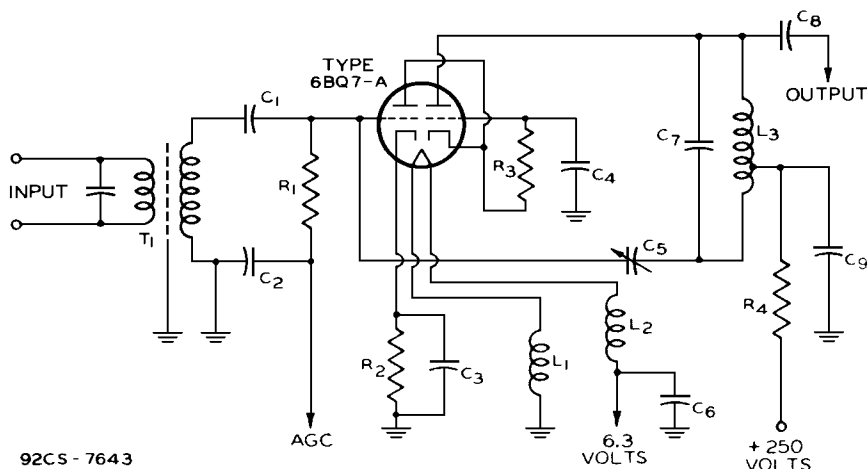


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MEDIUM-MU TWIN TRIODE

RCA-6BQ7-A in Driven RF-Grounded-Grid Amplifier Circuit with Direct-Coupled Drive



92CS-7643

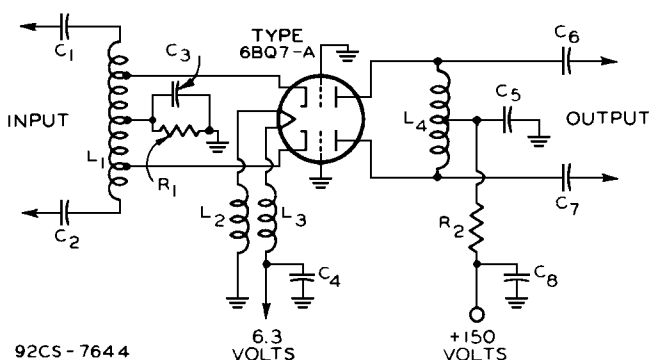
- C1: 33 μf , 400 volts
- C2: 1000 μf , 400 volts
- C3: 1000 μf , 400 volts
- C4: 1000 μf , 400 volts
- C5: 0.5 to 1.5 μf , 400 volts
- C6: 1000 μf , 400 volts
- C7: 2 μf , 400 volts
- C8: 33 μf , 400 volts
- C9: 1000 μf , 400 volts
- R1: 10000 ohms, 0.5 watt
- R2: 100 ohms, 0.5 watt
- R3: 500000 ohms, 0.5 watt
- R4: 100 ohms, 0.5 watt

L1, L2: Bifilar chokes, each 10 turns No.18 enamel

L3: Tuned circuit element of tuner. Value depends on distributed circuit capacitances. To determine tap point, tap down to 80 to 90% of total number of turns

T1: Tuned circuit element of tuner. Value depends on distributed circuit capacitances.

RCA-6BQ7-A in Push-Pull RF-Grounded-Grid Circuit



92CS-7644

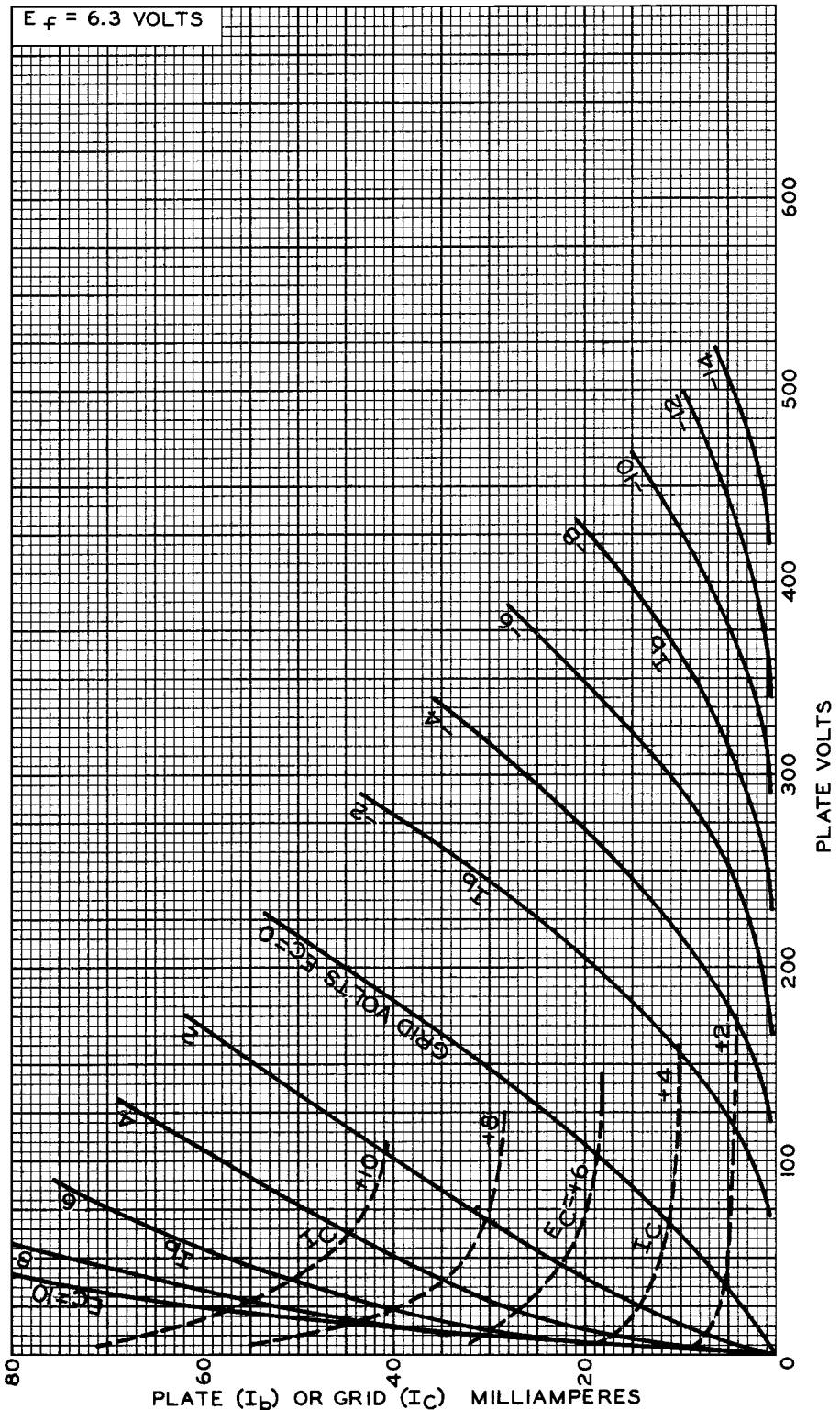
- C1 C2 C3 C4 C5:
- 1000 μf , 400 volts
- C6 C7: 100 μf , 400 volts
- C8: 1000 μf , 400 volts
- R1 R2: 100 ohms, 0.5 watt

L1 L4: Tuned circuit elements of tuner. Values depend on distributed circuit capacitances.

L2 L3: Bifilar chokes, each 10 turns of No.18 enamel wire, 1/4" coil form.

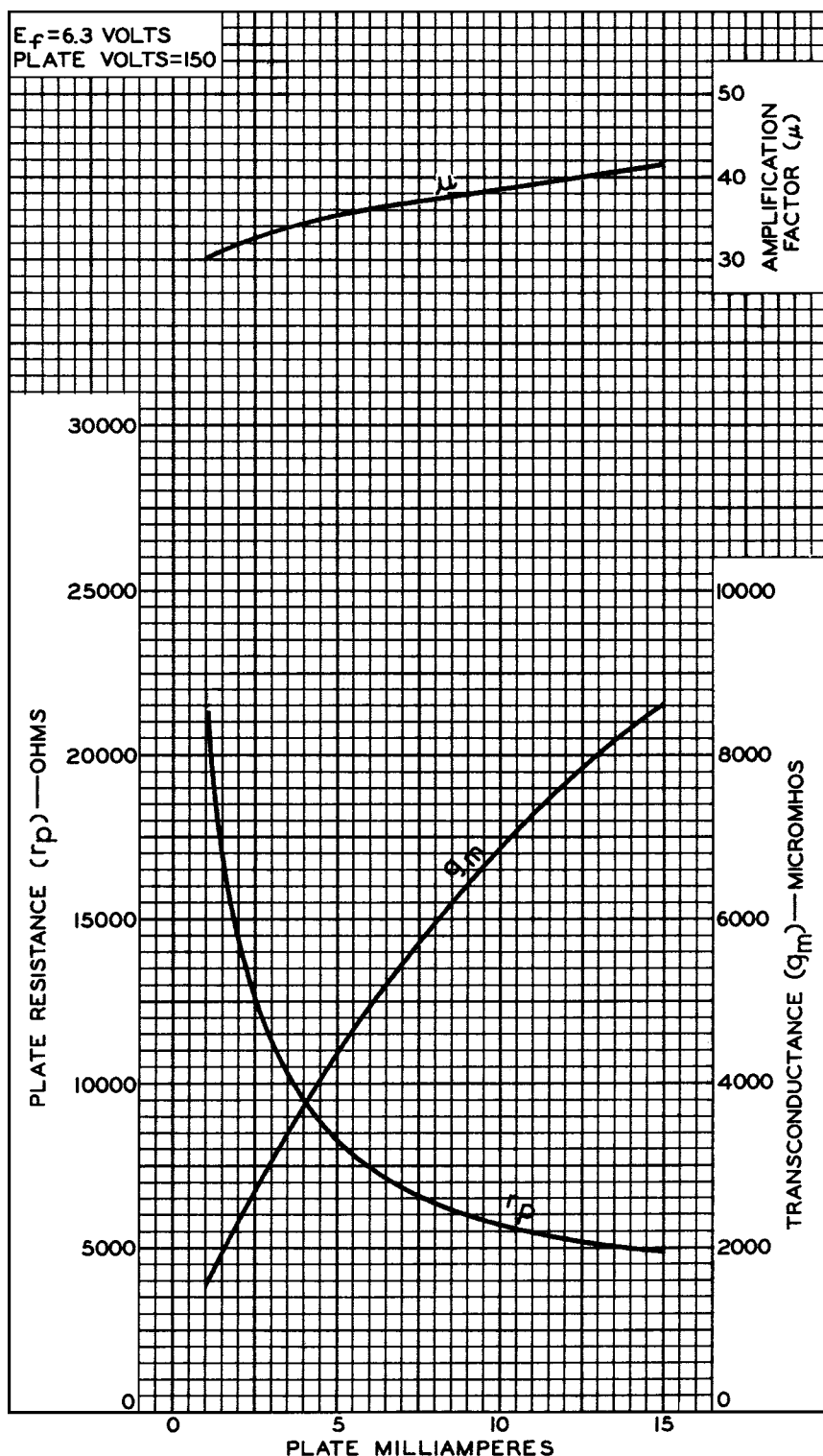
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AVERAGE CHARACTERISTICS Each Unit



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AVERAGE CHARACTERISTICS Each Unit



92CM-7538R2



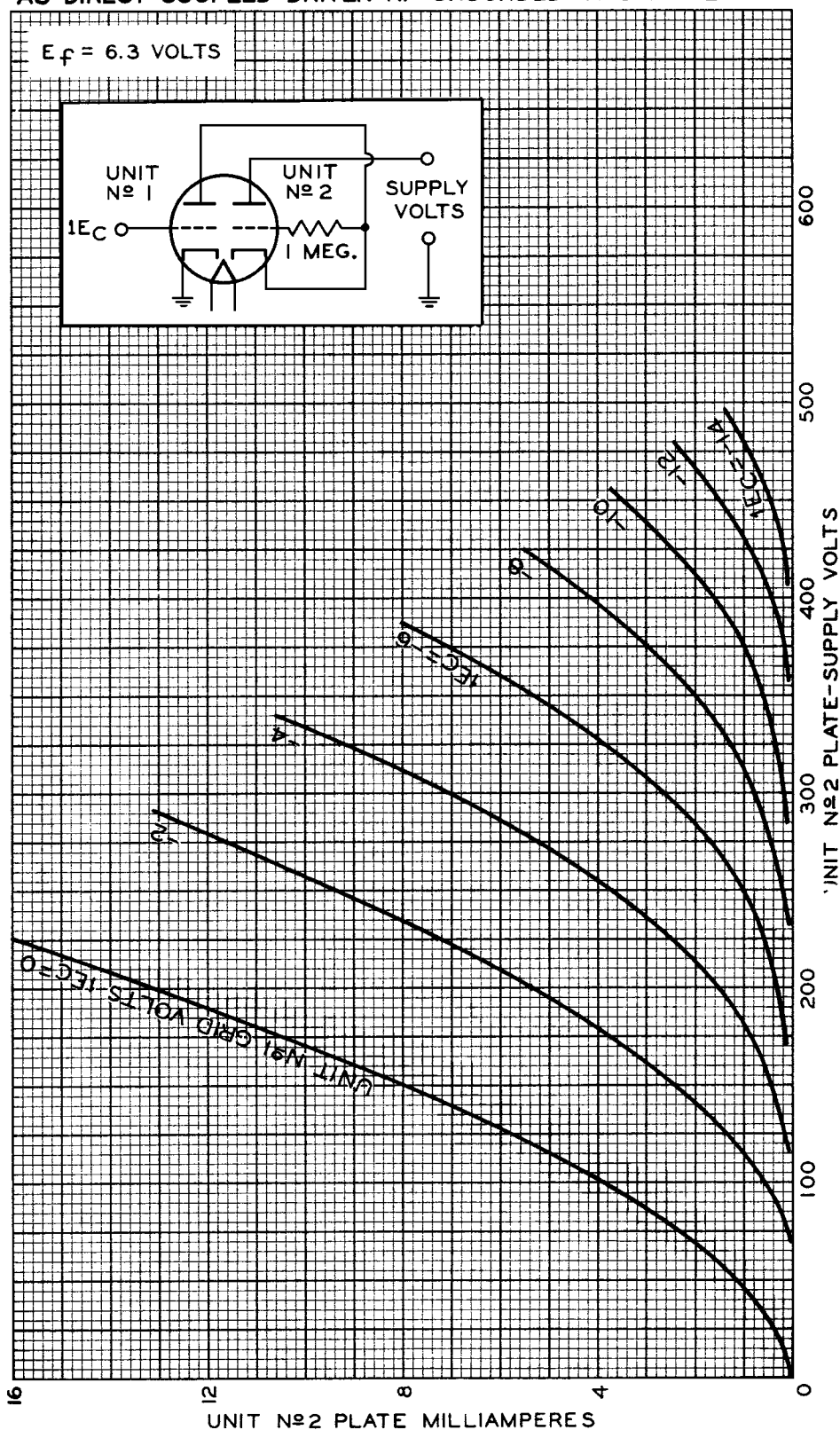
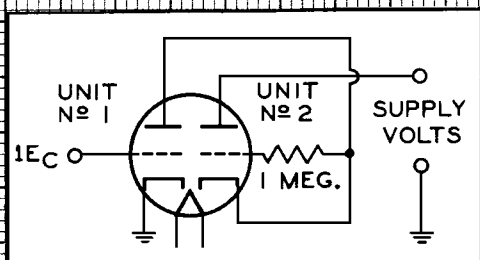
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AVERAGE PLATE CHARACTERISTICS
AS DIRECT-COUPLED DRIVEN RF-GROUNDED-GRID AMPLIFIER

$E_f = 6.3$ VOLTS



OCT. 3, 1950

TUBE DEPARTMENT

92CM-7549RI

RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY



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AVERAGE CHARACTERISTICS

$E_f = 6.3$ VOLTS

CURVE A: SUPPLY VOLTS = 300

CURVE B: PLATE VOLTS = 150

