



5763

VHF BEAM POWER TUBE

9-PIN MINIATURE TYPE

5763

GENERAL DATA**Electrical:**

Heater, for Unipotential Cathode:

Voltage 6.0 ± 10% ac or dc volts
 Current 0.75 amp

Transconductance for plate

current of 45 ma. 7000 μ hos

Mu-Factor, Grid No.2

to Grid No.1 16

Direct Interelectrode Capacitances:^oGrid No.1 to Plate 0.3 max. μ fInput 9.5 μ fOutput 4.5 μ f^o With no external shield.**Mechanical:**

Mounting Position Any

Maximum Overall Length 2-5/8"

Maximum Seated Length 2-3/8"

Length, Base Seat to Bulb Top (excluding tip) 2" ± 3/32"

Maximum Diameter 7/8"

Bulb T-6-1/2

Base Small-Button Noval 9-Pin (JETEC No. E9-1)

Basing Designation for BOTTOM VIEW 9K

Pin 1 - Plate

Pin 2 - No

Connection

Pin 3 - Grid No.3

Pin 4 - Heater

Pin 5 - Heater

Pin 6 - Grid No.2

Pin 7 - Cathode

Pin 8 - Grid No.1

Pin 9 - Grid No.1

**PLATE-MODULATED RF POWER AMPLIFIER--Class C Telephony**

Carrier conditions per tube for use with a max. modulation factor of 1.0

CCS*

ICAS**

Maximum Ratings, Absolute Values:

DC PLATE VOLTAGE 250 max. 300 max. volts

DC GRID-No.3 (SUPPRESSOR)

VOLTAGE 0 max. 0 max. volts

DC GRID-No.2 (SCREEN)

VOLTAGE 250 max. 250 max. volts

DC GRID-No.1 (CONTROL-

GRID) VOLTAGE -125 max. -125 max. volts

DC PLATE CURRENT 40 max. 50 max. ma

DC GRID-No.2 CURRENT 15 max. 15 max. ma

DC GRID-No.1 CURRENT 5 max. 5 max. ma

PLATE INPUT 10 max. 15 max. watts

GRID-No.2 INPUT 1.5 max. 1.5 max. watts

PLATE DISSIPATION 8 max. 12 max. watts

●, ●●: See next page.

MAY 3, 1954

TUBE DIVISION

DATA 1

RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY

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VHF BEAM POWER TUBE

	CCS*	ICAS**	
PEAK HEATER-CATHODE VOLTAGE:			
Heater negative with respect to cathode . . .	100 max.	100 max.	volts
Heater positive with respect to cathode . . .	100 max.	100 max.	volts
BULB TEMPERATURE (At hottest point on bulb surface) .	250 max.	250 max.	°C

Typical Operation up to 30 Mc:

DC Plate Voltage	250	300	
Grid No.3	Connected to cathode at socket		
DC Grid-No.2 Voltage . . .	250	250	volts
DC Grid-No.1 Voltage* . . .	-39	-42.5	volts
From a grid resistor of . . .	39000	18000	ohms
Peak RF Grid-No.1 Voltage .	46.5	53.5	volts
DC Plate Current	40	50	ma
DC Grid-No.2 Current	5.6	6	ma
DC Grid-No.1 Current (Approx.)	1	2.4	ma
Driving Power (Approx.) . . .	0.05	0.15	watt
Useful Power Output (Approx.)	6.4 [‡]	10 [‡]	watts

Maximum Circuit Values (CCS or ICAS Conditions):

Grid-No.1-Circuit Resistance	0.1 max.	megohm
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RF POWER AMPLIFIER & OSCILLATOR--Class C Telegraphy[‡]
and
RF POWER AMPLIFIER--Class C FM Telephony

	CCS*	ICAS**	
Maximum Ratings, Absolute Values:			
DC PLATE VOLTAGE	300 max.	350 max.	volts
DC GRID-No.3 (SUPPRESSOR) VOLTAGE	0 max.	0 max.	volts
DC GRID-No.2 (SCREEN) VOLTAGE	250 max.	250 max.	volts
DC GRID-No.1 (CONTROL-GRID) VOLTAGE	-125 max.	-125 max.	volts
DC PLATE CURRENT	50 max.	50 max.	ma
DC GRID-No.2 CURRENT	15 max.	15 max.	ma
DC GRID-No.1 CURRENT	5 max.	5 max.	ma
PLATE INPUT	15 max.	17 max.	watts

• obtained preferably from a separate source modulated with the plate supply, or from the modulated plate supply through a series resistor.

* obtained from grid-No.1 resistor or from a combination of grid-No.1 resistor with either fixed supply or cathode resistor.

‡ Key down conditions per tube without amplitude modulation. Modulation essentially negative may be used if the positive peak of the audio-frequency envelope does not exceed 115% of the carrier conditions.

•, ••, ‡: See next page.

→ Indicates a change

MAY 3, 1954

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DATA 1

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VHF BEAM POWER TUBE

	CCS*	ICAS**	
GRID-No.2 INPUT	2 max.	2 max.	watts
PLATE DISSIPATION	12 max.	13.5 max.	watts
PEAK HEATER-CATHODE VOLTAGE:			
Heater negative with respect to cathode . . .	100 max.	100 max.	volts
Heater positive with respect to cathode . . .	100 max.	100 max.	volts
BULB TEMPERATURE (At hottest point on bulb surface) . .	250 max.	250 max.	°C

Typical Operation up to 30 Mc:

DC Plate Voltage	300	350	volts
Grid No.3	Connected to cathode at socket		
DC Grid-No.2 Voltage	250	250	volts
DC Grid-No.1 Voltage*	-28.5	-28.5	volts
From a grid resistor of	18000	18000	ohms
Peak RF Grid-No.1 Voltage	37.5	37	volts
DC Plate Current	50	48.5	ma
DC Grid-No.2 Current	6.6	6.2	ma
DC Grid-No.1 Current (Approx.)	1.6	1.6	ma
Driving Power (Approx.)	0.1	0.1	watt
Useful Power Output (Approx.)	10.3 [■]	12 [■]	watts ←

Typical Operation at 50 Mc:

DC Plate Voltage	300	-	volts
Grid No.3	Connected to cathode at socket		
DC Grid-No.2 Voltage	250	-	volts
DC Grid-No.1 Voltage*	-60	-	volts
From a grid resistor of	22000	-	ohms
Peak RF Grid-No.1 Voltage	80	-	volts
DC Plate Current	50	-	ma
DC Grid-No.2 Current	5	-	ma
DC Grid-No.1 Current (Approx.)	3	-	ma
Driving Power (Approx.)	0.35	-	watt
Useful Power Output (Approx.)	7 [■]	-	watts ←

Maximum Circuit Values (CCS or ICAS Conditions):

Grid-No.1-Circuit Resistance	0.1 max.	megohm
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FREQUENCY MULTIPLIER**Maximum CCS* Ratings, Absolute Values:**

DC PLATE VOLTAGE	300 max.	volts
DC GRID-No.3 (SUPPRESSOR) VOLTAGE	0 max.	volts
DC GRID-No.2 (SCREEN) VOLTAGE	250 max.	volts
DC GRID-No.1 (CONTROL-GRID) VOLTAGE	-125 max.	volts
DC PLATE CURRENT	50 max.	ma

* Continuous Commercial Service.

** Intermittent Commercial and Amateur Service.

■: See next page.

← Indicates a change

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DATA 2

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VHF BEAM POWER TUBE

DC GRID-No.2 CURRENT	15 max.	ma
DC GRID-No.1 CURRENT	5 max.	ma
PLATE INPUT	15 max.	watts
GRID-No.2 INPUT	2 max.	watts
PLATE DISSIPATION	12 max.	watts
PEAK HEATER-CATHODE VOLTAGE:		
Heater negative with respect to cathode .	100 max.	volts
Heater positive with respect to cathode .	100 max.	volts
BULB TEMPERATURE (At hottest point on bulb surface)	250 max.	°C

Typical Operation:	<i>Doubler</i>	<i>Tripler</i>	
	<i>to 175 Mc</i>	<i>to 175 Mc</i>	
DC Plate Voltage	300	300	volts
Grid No.3	Connected to cathode at socket		
DC Grid-No.2 Voltage	*	*	volts
DC Grid-No.1 Voltage [⊙]	-75	-100	volts
From grid resistor of	75000	100000	ohms
Peak RF Grid-No.1 Voltage	95	120	volts
DC Plate Current	40	35	ma
DC Grid-No.2 Current	4	5	ma
DC Grid-No.1 Current (Approx.)	1	1	ma
Driving Power (Approx.)	0.6	0.6	watt
Useful Power Output (Approx.)	2.1 [■]	1.3 [■]	watts

Maximum Circuit Values (For maximum rated conditions):
 → Grid-No.1-Circuit Resistance 0.1 max. megohm

CHARACTERISTICS RANGE VALUES FOR EQUIPMENT DESIGN

	<i>Note</i>	<i>Min.</i>	<i>Max.</i>	
Heater Current	1	0.69	0.81	amp
Grid No.1-Plate Capacitance	2	-	0.3	μf
Input Capacitance	2	8.0	11.0	μf
Output Capacitance	2	3.8	5.2	μf
Transconductance	1,3	5100	8900	μmhos
Plate Current	1,3	33	57	ma
Grid-No.2 Current	1,3	-	10	ma
Reverse Grid-No.1 Current	1,4	-	2	μamp

NOTE 1: With 6 volts ac or dc on heater.
 NOTE 2: With no external shield.
 NOTE 3: With dc plate voltage of 250 volts, dc grid-No.2 voltage of 250 volts, and dc grid-No.1 voltage of -7.5 volts.
 NOTE 4: With dc plate voltage of 250 volts, dc grid-No.2 voltage of 250 volts, dc grid-No.1 voltage of -7.5 volts, and grid-No.1-circuit resistance of 0.1 megohm.

⊙ Obtained from a fixed supply, or by a grid-No.1 resistor of value shown.
 ■ This value of useful power is measured at load of output circuit.

Data on Operating Frequencies for the 5763 are given on the sheet TRANS. TUBE RATINGS vs FREQUENCY

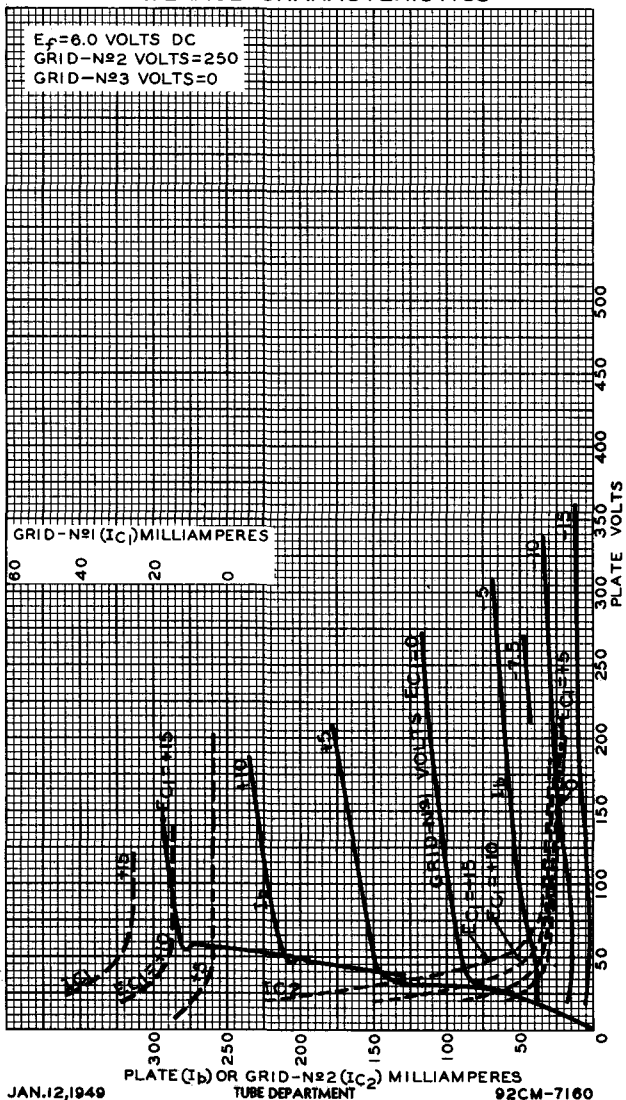
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AVERAGE CHARACTERISTICS



JAN. 12, 1949

PLATE (I_b) OR GRID-N^o2 (I_{C2}) MILLIAMPERES

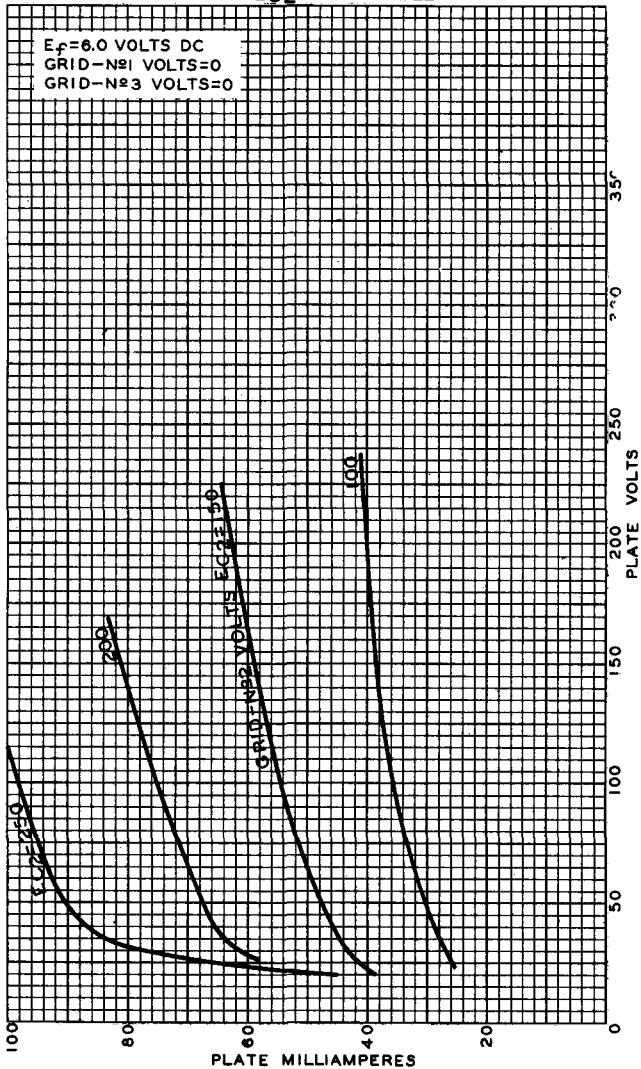
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AVERAGE PLATE CHARACTERISTICS WITH EC2 AS VARIABLE



JAN. 10, 1949

TUBE DEPARTMENT
RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY

92CM-7159



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VHF BEAM POWER AMPLIFIER

9-PIN MINIATURE TYPE

GENERAL DATA

Electrical:

Heater, for Unipotential Cathode:

Voltage	6.0	ac or dc volts
Current	0.75	amp

Transconductance for plate current of 45 ma.	7000	μ mhos
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Mu-Factor, Grid No.2 to Grid No.1	16
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Direct Interelectrode Capacitances:^o

Grid No.1 to Plate	0.3 max.	μ mf
Input	9.5	μ mf
Output	4.5	μ mf

^o with no external shield.

Mechanical:

Mounting 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"
Maximum Diameter	7/8"
Bulb	T-6-1/2
Base	Small-Button Nova! 9-Pin
Basing Designation for BOTTOM VIEW	9K

Pin 1 - Plate

Pin 2 - No

Connection

Pin 3 - Grid No.3

Pin 4 - Heater



Pin 5 - Heater

Pin 6 - Grid No.2

Pin 7 - Cathode

Pin 8 - Grid No.1

Pin 9 - Grid No.1

RF POWER AMPLIFIER & OSCILLATOR - Class C Telegraphy^{oo}

and

RF POWER AMPLIFIER - Class C FM Telephony

Maximum CCS^o Ratings, Absolute Values:

DC PLATE VOLTAGE	300 max.	volts
DC GRID-No.3 (SUPPRESSOR) VOLTAGE.	0 max.	volts
DC GRID-No.2 (SCREEN) VOLTAGE.	250 max.	volts
DC GRID-No.1 (CONTROL-GRID) VOLTAGE.	-125 max.	volts
DC PLATE CURRENT	50 max.	ma
DC GRID-No.2 CURRENT	15 max.	ma
DC GRID-No.1 CURRENT	5 max.	ma
PLATE INPUT.	15 max.	watts
GRID-No.2 INPUT.	2 max.	watts
PLATE DISSIPATION.	12 max.	watts

• ^{oo}: See next page.

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VHF BEAM POWER AMPLIFIER

PEAK HEATER-CATHODE VOLTAGE:

Heater negative with respect to cathode.	100 max.	volts
Heater positive with respect to cathode.	100 max.	volts

BULB TEMPERATURE AT HOTTEST POINT

ON BULB SURFACE	250 max.	°C
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Typical Operation at 50 Mc:

DC Plate Voltage	300	volts
Grid No.3.	Connected to cathode at	socket
DC Grid-No.2 Voltage	250	volts
DC Grid-No.1 Voltage [⊕]	{ -60	volts
	{ 22000	ohms
Peak RF Grid-No.1 Voltage.	80	volts
DC Plate Current	50	ma
DC Grid-No.2 Current	5	ma
DC Grid-No.1 Current (Approx.)	3	ma
Driving Power (Approx.)	0.35	watt
Power Output (Approx.) [⊙]	8	watts

FREQUENCY MULTIPLIER

Maximum CCS[⊙] Ratings, Absolute Values:

DC PLATE VOLTAGE	300 max.	volts
DC GRID-No.3 (SUPPRESSOR) VOLTAGE.	0 max.	volts
DC GRID-No.2 (SCREEN) VOLTAGE.	250 max.	volts
DC GRID-No.1 (CONTROL-GRID) VOLTAGE.	-125 max.	volts
DC PLATE CURRENT	50 max.	ma
DC GRID-No.2 CURRENT	15 max.	ma
DC GRID-No.1 CURRENT	5 max.	ma
PLATE INPUT.	15 max.	watts
GRID-No.2 INPUT.	2 max.	watts
PLATE DISSIPATION.	12 max.	watts

PEAK HEATER-CATHODE VOLTAGE:

Heater negative with respect to cathode.	100 max.	volts
Heater positive with respect to cathode.	100 max.	volts

BULB TEMPERATURE AT HOTTEST POINT

ON BULB SURFACE	250 max.	°C
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Typical Operation:

	Doubler to 175 Mc	Tripler to 175 Mc
DC Plate Voltage	300	300
Grid No.3.	Connected to cathode at	socket
DC Grid-No.2 Voltage	*	*

⊞ Key down conditions per tube without amplitude modulation. Modulation essentially negative may be used if the positive peak of the audio-frequency envelope does not exceed 115% of the carrier conditions.

⊙ Useful power output is approximately 7 watts.

•, ⊕, * : See next page.

MAY 20, 1949

TUBE DEPARTMENT
RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY

TENTATIVE DATA 1



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VHF BEAM POWER AMPLIFIER

	<i>Doubler to 175 Mc</i>	<i>Tripler to 175 Mc</i>	
DC Grid-No.1 Voltage [⊕]	-75 75000	-100	volts
		100000	ohms
Peak RF Grid-No.1 Voltage.	95	120	volts
DC Plate Current	40	35	ma
DC Grid-No.2 Current	4	5	ma
DC Grid-No.1 Current (Approx.)	1	1	ma
Driving Power (Approx.)	0.6	0.6	watt
Power Output (Approx.) [*]	3.6	2.8	watts

Maximum Circuit Values (for maximum rated conditions):

Grid-No.1-Circuit Resistance 0.1 max. megohm

CHARACTERISTICS RANGE VALUES FOR EQUIPMENT DESIGN

	<i>Note</i>	<i>Min.</i>	<i>Max.</i>	
Heater Current	1	0.69	0.81	amp
Grid No.1-Plate Capacitance [⊕] -	-	-	0.3	μuf
Input Capacitance [⊕]	-	8.0	11.0	μuf
Output Capacitance [⊕]	-	3.8	5.2	μuf

⊕ with no external shield.

Note 1: With 6 volts ac on heater.

● Continuous Commercial Service.

⊕ Obtained from a fixed supply, or by a grid-No.1 resistor of value shown.

* Useful power output is approximately 2.1 watts for doubler service and 1.3 watts for tripler service.

* Obtained from plate supply voltage of 300 volts through a series resistor of 12500 ohms.

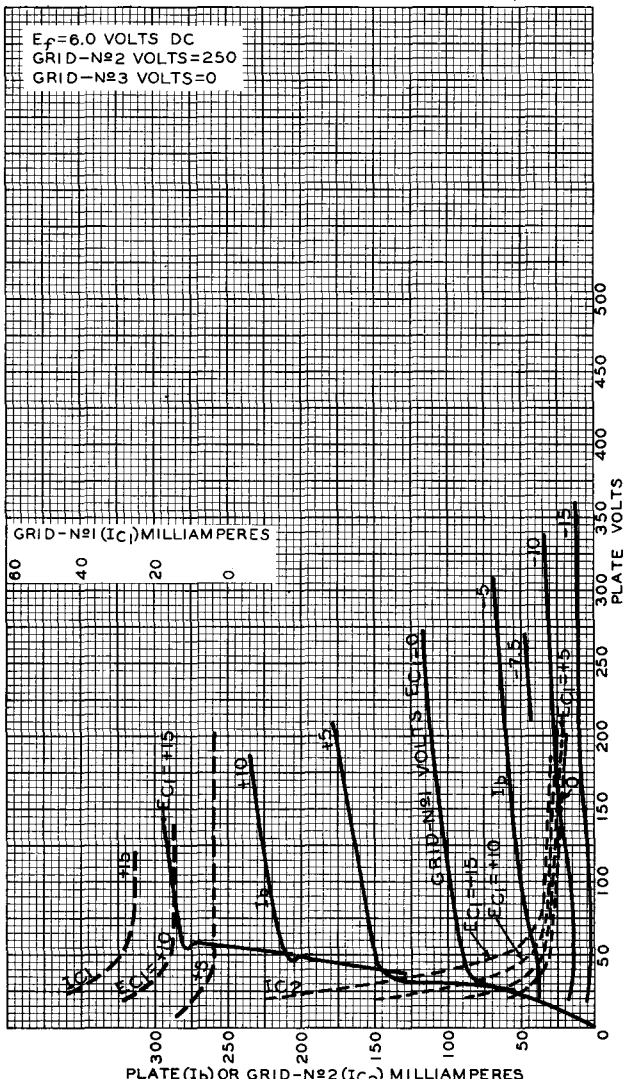
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AVERAGE CHARACTERISTICS

$E_f = 6.0$ VOLTS DC
 GRID-N^o2 VOLTS = 250
 GRID-N^o3 VOLTS = 0



JAN. 12, 1949

PLATE (I_B) OR GRID-N^o2 (I_{C2}) MILLIAMPERES
 TUBE DEPARTMENT

92CM-7160

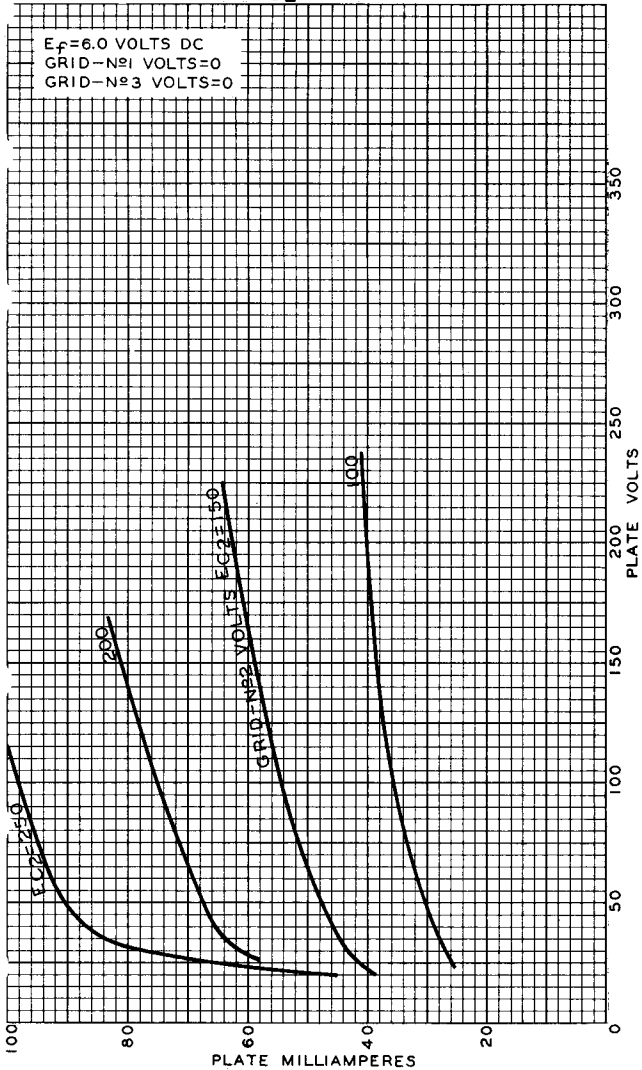
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AVERAGE PLATE CHARACTERISTICS WITH EC₂ AS VARIABLE



JAN. 10, 1949

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