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PREMIUM TYPE**MEDIUM-MU TWIN TRIODE**

MINIATURE TYPE

*Intended for applications where dependable performance
under shock and vibration is paramount***GENERAL DATA****Electrical:**

Heater, for Unipotential Cathodes:

Heater Arrangement	Series	Parallel	
Voltage (AC or DC)	12.6 ± 10%	6.3 ± 10%	volts
Current	0.175	0.35	amp

Direct Interelectrode Capacitances (No external shield):

	Unit No. 1	Unit No. 2	
Grid to Plate	1.5	1.5	μuf
Input	1.6	1.6	μuf
Output	0.50	0.35	μuf

Characteristics, Class A₁ Amplifier:

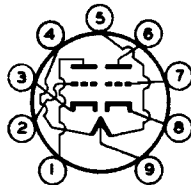
Plate Voltage	100	250	volts
Grid Voltage	0	-8.5	volts
Amplification Factor	19.5	17	
Plate Resistance	6250	7770	ohms
Transconductance	3100	2200	μmhos
Plate Current	11.8	10.5	ma

Mechanical:

Mounting Position	Any
Maximum Overall Length	2-3/16"
Maximum Seated Length	1-15/16"
Length from Base Seat to Bulb Top (Excluding Tip)	1-9/16" ± 3/32"
Maximum Diameter	7/8"
Bulb	T-6-1/2
Base	Small-Button Noval 9-Pin (JETEC No. E9-1)

BOTTOM VIEW

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 - Heater
Mid-Tap

AMPLIFIER - Class A₁*Values are for each unit***Maximum Ratings, Absolute Values:**

PLATE VOLTAGE	330 max.	volts
PLATE DISSIPATION	3 max.	watts
CATHODE CURRENT	22 max.	ma

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TUBE DEPARTMENT

TENTATIVE DATA 1

RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY



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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) 180 max. °C

Maximum Circuit Values (For maximum rated conditions):

Grid-Circuit Resistance:

For cathode-bias operation 1.0 max. megohm

For fixed-bias operation 0.25 max. megohm

CHARACTERISTICS RANGE VALUES FOR EQUIPMENT DESIGN*

	Note	Min.	Max.	
Heater Current	1	0.160	0.190	amp
Amplification Factor . . .	1,2	15.5	18.5	
Plate Current	1,2	6.5	14.5	ma
Plate Current	1,3	-	20	μamp
Transconductance	1,2	1750	2650	μmhos
Transconductance	1,4	2500	3700	μmhos
Reverse Grid Current . . .	5,6	-	1.5	μamp
Heater-Cathode				
Leakage Current:				
Heater negative with respect to cathode. .	1,7	-	10	μamp
Heater positive with respect to cathode. .	1,8	-	10	μamp
Leakage Resistance:				
Between Grid and All Other Electrodes Tied Together . .	1,9	500	-	megohms
Between Plate and All Other Electrodes Tied Together . .	1,10	500	-	megohms

* Each tube is stabilized before characteristics testing by continuous operation for at least 45 hours at room temperature and with dissipation values equivalent to life test conditions.

Note 1: With 12.6 volts ac or dc on heater (series connection).

Note 2: With dc plate voltage of 250 volts and dc grid voltage of -8.5 volts. Each unit is tested separately. Electrodes of units not under test are grounded.

Note 3: With dc plate voltage of 250 volts, plate load resistance of 0.5 megohm, and dc grid voltage of -30 volts. Each unit is tested separately. Electrodes of unit not under test are grounded.

Note 4: With dc plate voltage of 100 volts and dc grid voltage of 0 volts. Each unit is tested separately. Electrodes of unit not under test are grounded.

Note 5: With 15 volts ac or dc on heater (series connection).

Note 6: With dc plate voltage of 250 volts, grid resistor of 0.5 megohm, and dc grid voltage of -30 volts. Each unit is tested separately. Electrodes of unit not under test are grounded.

Note 7: With -100 volts dc between heater and cathode, and units connected in parallel.

Note 8: With +100 volts dc between heater and cathode, and units connected in parallel.

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Note 9: With grid 100 volts negative with respect to all other electrodes tied together.

Note 10: With plate 300 volts negative with respect to all other electrodes tied together.

SPECIAL RATINGS and PERFORMANCE DATA

Shock Rating:

Impact Acceleration 600 max. g

Tubes are held rigid in three different positions in a Navy Type, High Impact (flyweight) Shock Machine and are subjected to 600 g impact acceleration.

Fatigue Rating:

Vibrational Acceleration 2.5 max. g

Tubes are rigidly mounted and subjected in each of three positions to 2.5 g vibrational acceleration at 25 cycles per second for 32 hours.

Low-Frequency Vibration Performance:

RMS Output Voltage 100 max. mv

Under the following conditions and with units connected in parallel: Heater voltage of 12.6 volts, plate voltage supply of 250 volts, dc grid voltage of -8.5 volts, plate load resistance of 2000 ohms, and vibrational acceleration of 2.5 g at 25 cycles per second.

Heater-Cycling Life Performance:

Cycles of Intermittent Operation. . . 2000 min. cycles

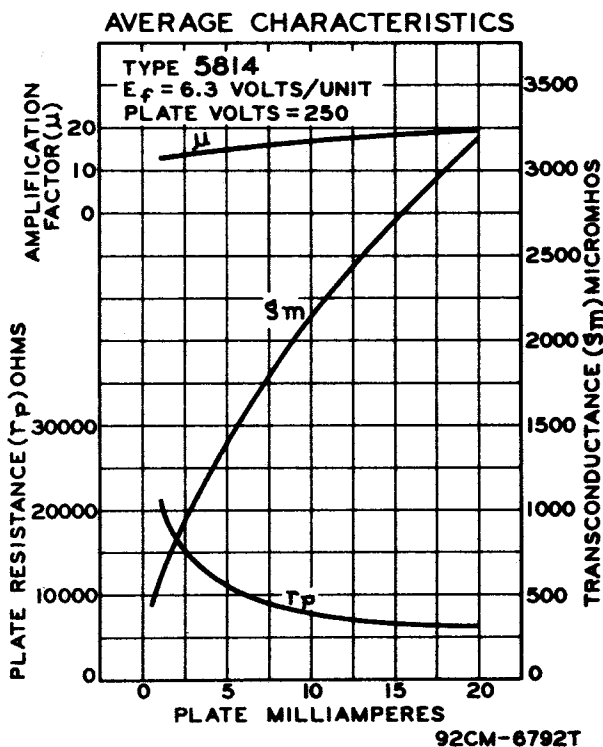
Under the following conditions and with heaters of unit No.1 and unit No.2 connected in parallel: Heater voltage of 7.5 volts cycled one minute on and one minute off, heater 100 volts positive with respect to cathode, and plate and grid voltage = 0 volts.

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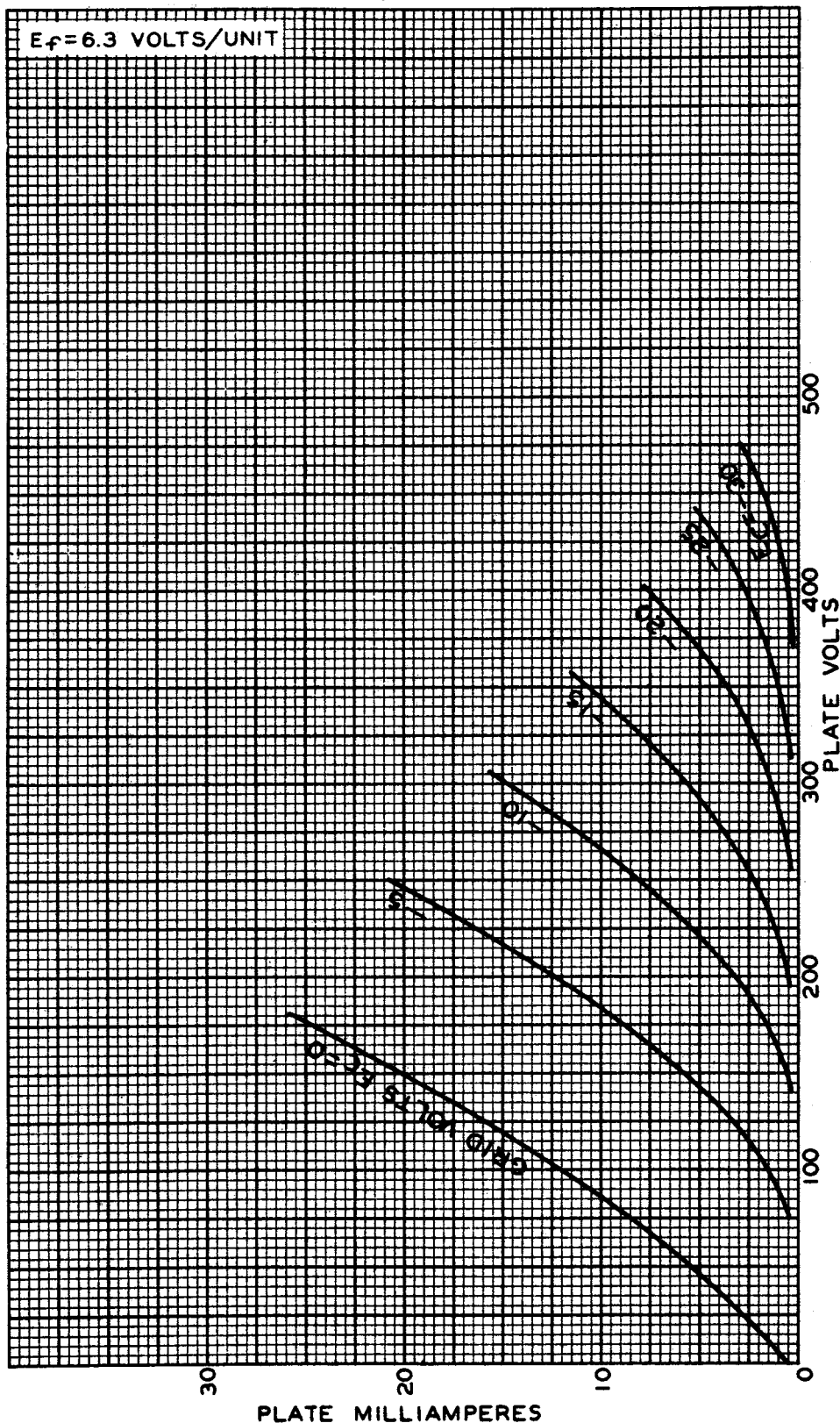
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AVERAGE PLATE CHARACTERISTICS FOR EACH UNIT

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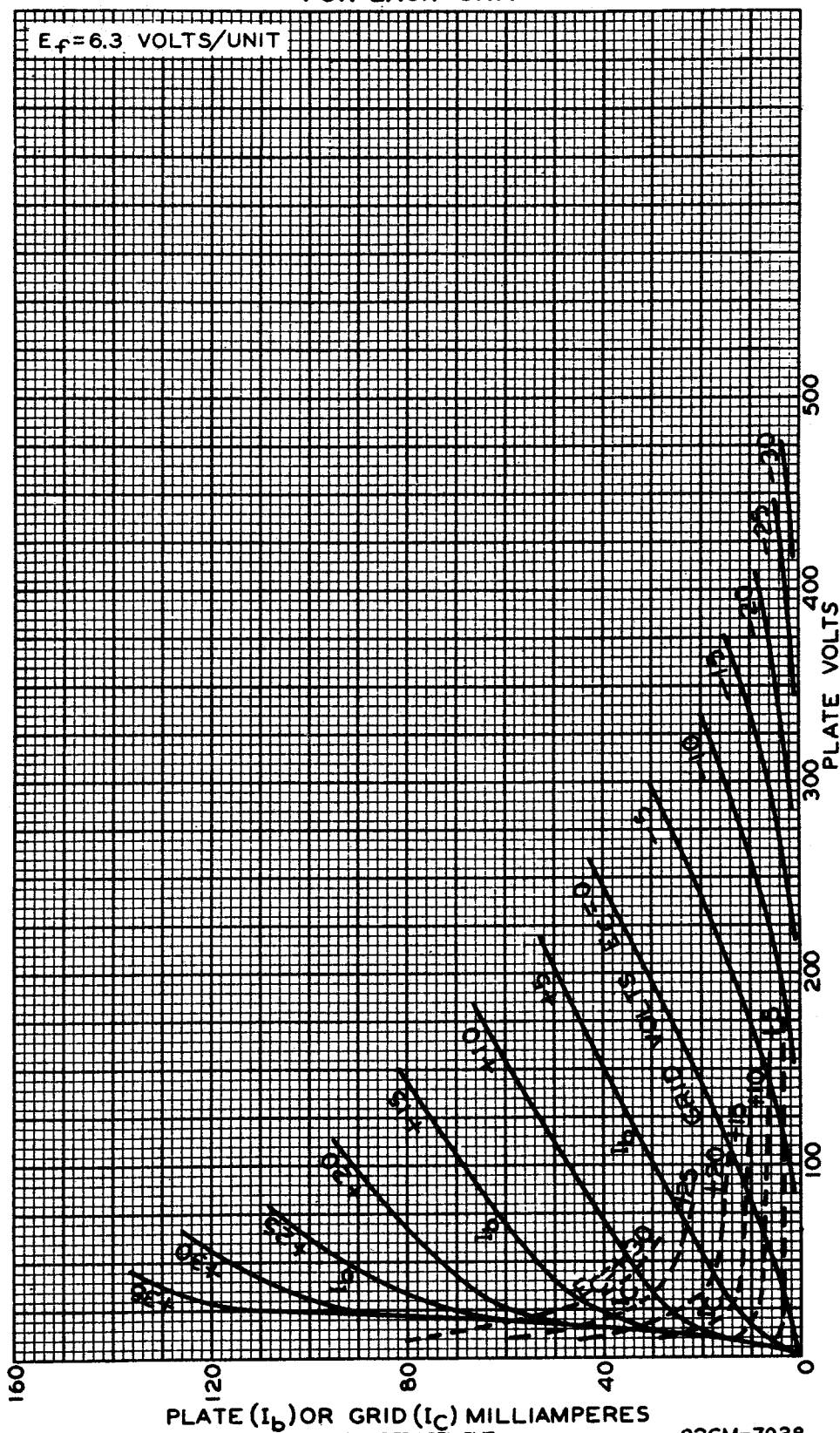
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AVERAGE PLATE CHARACTERISTICS FOR EACH UNIT



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