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MEDIUM-MU TRIODE— THREE-PLATE TETRODE

9-PIN MINIATURE TYPE

For harmonic-generator applications

GENERAL DATA

Electrical:

Heater, for Unipotential Cathode:

Voltage (AC or DC)	6.3 $\pm$ 10%	volts
Current	0.45	amp

Direct Interelectrode Capacitances:⁰

Triode Unit:

Grid to plate	1.4	μ f
Grid to cathode & heater.	2.6	μ f
Plate to cathode & heater	1	μ f

Tetrode Unit:

Grid No.1 to plate No.1	0.06 max.	μ f
Grid No.1 to cathode & heater, plate No.3, plate No.2, and grid No.2	4.5	μ f
Plate No.1 to cathode & heater, plate No.3, plate No.2, and grid No.2	1.4	μ f
Tetrode grid No.1 to triode plate . . .	0.35 max.	μ f
Tetrode plate No.1 to triode plate. . .	0.008 max.	μ f

Characteristics, Class A₁ Amplifier:

Triode Unit

Plate Voltage	100	volts
Grid Voltage.	-1	volt
Amplification Factor.	40	
Plate Resistance (Approx.)	7400	ohms
Transconductance.	5400	μ hos
Plate Current	7.9	ma
Grid Voltage (Approx.) for plate μ a = 100.	-7	volts

Tetrode Unit with plates No.2 and No.3 connected to cathode

Plate-No.1 Voltage.	250	volts
Grid-No.2 Voltage	250	volts
Grid-No.1 Voltage	-2	volts
Plate-No.1 Resistance (Approx.)	0.75	megohm
Transconductance, Grid No.1 to Plate No.1	4400	μ hos
Plate-No.1 Current.	7.3	ma
Grid-No.2 Current	1.4	ma
Grid-No.1 Voltage (Approx.) for plate-No.1 μ a = 100	-7	volts

⁰ With external shield JEDEC No.315 connected to cathode.



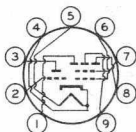
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Mechanical:

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 General Section
 Bulb. T6-1/2
 Base. Small-Button Noval 9-Pin (JEDEC No. E9-1)
 Basing Designation for BOTTOM VIEW. 9KP

Pin 1-Tetrode
 Plate No.3
 Pin 2-Triode Grid
 Pin 3-Triode Plate
 Pin 4-Heater,
 Cathode
 Pin 5-Heater



Pin 6-Tetrode
 Grid No.1
 Pin 7-Tetrode
 Grid No.2
 Pin 8-Tetrode
 Plate No.2
 Pin 9-Tetrode
 Plate No.1

HARMONIC-GENERATOR SERVICE

Maximum Ratings, Design-Maximum Values:

	Triode Unit	Tetrode Unit	
PLATE VOLTAGE.	275 max.	—	volts
PLATE-No.1 VOLTAGE	—	275 max.	volts
PLATE-No.2 VOLTAGE	—	200 max.	volts
PLATE-No.3 VOLTAGE	—	200 max.	volts
GRID-No.2 (SCREEN-GRID) SUPPLY VOLTAGE	—	275 max.	volts
GRID-No.2 VOLTAGE.	—	See Grid-No.2 Input	

Rating Chart at front of Receiving Tube Section

GRID-No.1 (CONTROL- GRID) VOLTAGE:			
Negative-bias value. . .	40 max.	40 max.	volts
Positive-bias value. . .	0 max.	0 max.	volts
GRID-No.2 INPUT:			
For grid-No.2 voltages up to 137.5 volts. . .	—	0.45 max.	watt
For grid-No.2 voltages between 137.5 and 275 volts.	—	See Grid-No.2 Input	

Rating Chart at front of Receiving Tube Section

PLATE DISSIPATION.	1.7 max.	—	watts
PLATE-No.1 DISSIPATION . .	—	2.3 max.	watts
PLATE-No.2 DISSIPATION . .	—	0.3 max.	watt
PLATE-No.3 DISSIPATION . .	—	0.3 max.	watt



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MEDIUM-MU TRIODE— THREE-PLATE TETRODE

Typical Operation:

Tetrode Unit with separate plate operation

Plates—No.1, No.2, and No.3 Voltage	100	volts
Grid—No.2 Voltage	50	volts
Grid—No.1 Voltage	-1	volt
Plate—No.1 Current.	1.6	ma
Plate—No.2 Current.	0.04	ma
Plate—No.3 Current.	0.04	ma
Grid—No.2 Current	0.3	ma
Transconductance (Approx.):		
Grid No.1 to plate No.1	2500	μ hos
Grid No.1 to plate No.2	70	μ hos
Grid No.1 to plate No.3	70	μ hos

Maximum Circuit Values:

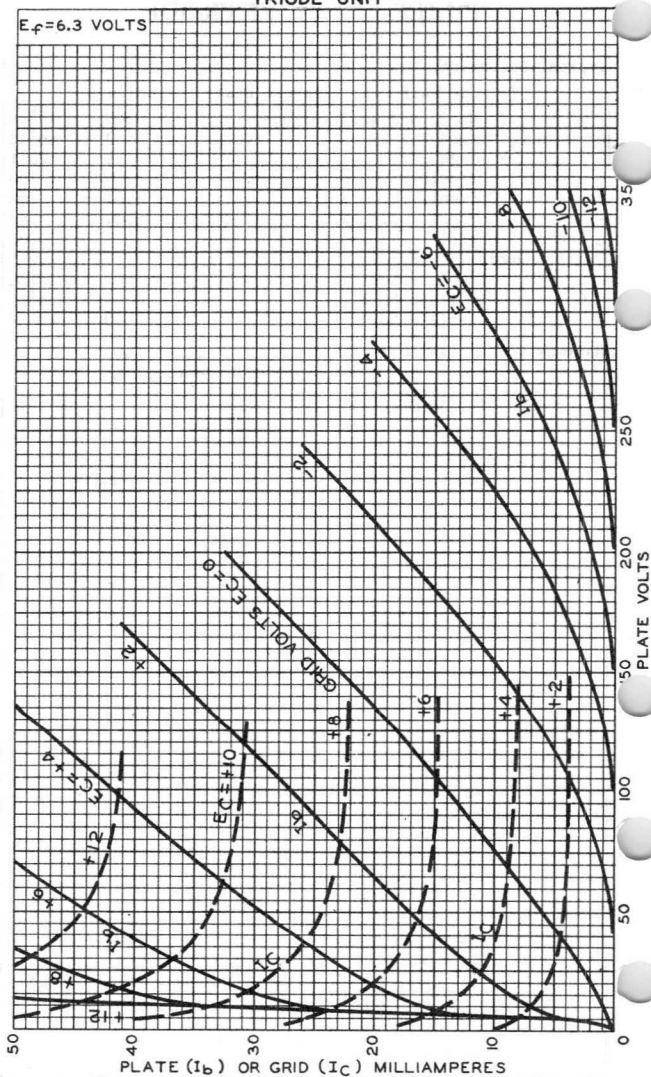
Triode Unit Tetrode Unit

Grid—No.1—Circuit Resistance:			
For fixed-bias operation.	0.5 max.	0.5 max.	megohm

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AVERAGE CHARACTERISTICS
TRIODE UNIT $E_f = 6.3$ VOLTSPLATE (I_b) OR GRID (I_c) MILLIAMPERES

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92CM-10220



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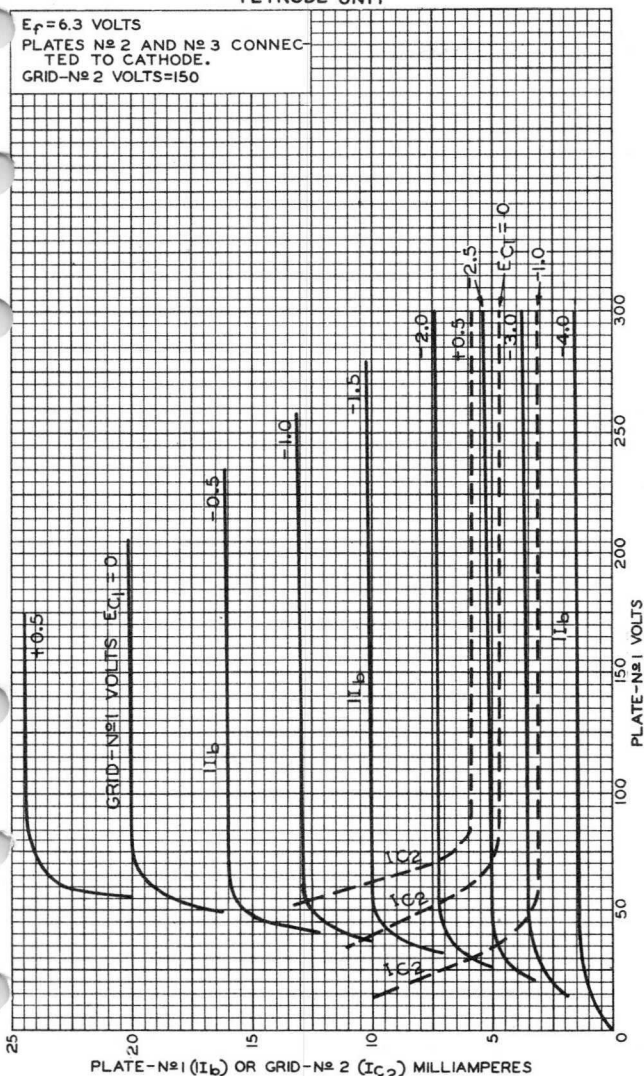
AVERAGE CHARACTERISTICS TETRODE UNIT

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$E_f = 6.3$ VOLTS

PLATES NO 2 AND NO 3 CONN-
ECTED TO CATHODE.

GRID-NO 2 VOLTS = 150



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