

Diode—Sharp-Cutoff Twin-Plate Tetrode

9-PIN MINIATURE TYPE

For Frequency-Divider and Complex-Wave-Generator
Circuits of Electronic Musical Instruments

GENERAL DATA

Electrical:

Heater, for Unipotential Cathode:

Voltage (AC or DC)	6.3 ± 10%	volts
Current at 6.3 volts.	0.3	amp

Direct Interelectrode Capacitances:▲

Tetrode Unit:

Grid No.1 to plate A.	0.04	μμf
Grid No.1 to plate B.	0.03 max.	μμf
Grid No.1 to cathode & internal shield, grid No.2, and heater . . .	5.5	μμf
Plate A to cathode & internal shield, grid No.2, and heater . . .	1.8	μμf
Plate B to cathode & internal shield, grid No.2, and heater . . .	1.8	μμf
Tetrode grid No.1 to diode plate. . . .	0.022	μμf
Tetrode plate A to diode plate.	0.02 max.	μμf
Tetrode plate B to diode plate.	0.055	μμf

Characteristics, Class A₁ Amplifier (Tetrode Unit):

Plates A and B connected together

Plate Voltage	100	volts
Grid-No.2 Voltage	100	volts
Grid-No.1 Supply Voltage.	0	volts
Grid-No.1 Resistor (Bypassed)	2.2	megohms
Plate Resistance (Approx.)	90000	ohms
Transconductance.	3200	μmhos
Plate Current	3.8	ma
Grid-No.2 Current	1.7	ma
Grid-No.1 Voltage (Approx.) for plate μa = 20	-4	volts

Using either Plate A or B, with plate not in use connected to ground

Plate Voltage	100	volts
Grid-No.2 Voltage	100	volts
Grid-No.1 Supply Voltage.	0	volts
Grid-No.1 Resistor (Bypassed)	2.2	megohms
Plate Resistance (Approx.)	130000	ohms
Transconductance.	1900	μmhos
Plate Current	2.2	ma
Grid-No.2 Current	3	ma

Mechanical:

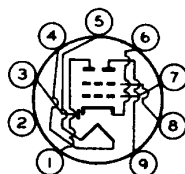
Operating Position.	Any
Maximum Overall Length.	2-5/8"
Maximum Seated Length	2-3/8"



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Length, Base Seat to Bulb Top (Excluding tip) . . . 2" $\pm$ 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. 9MR

Pin 1-Tetrode
 Plate B
 Pin 2-No Connec-
 tion
 Pin 3-Diode Plate
 Pin 4-Heater
 Pin 5-Heater



Pin 6-Cathode,
 Internal
 Shield
 Pin 7-Tetrode
 Grid No.1
 Pin 8-Tetrode
 Grid No.2
 Pin 9-Tetrode
 Plate A

FREQUENCY-DIVIDER & COMPLEX-WAVE-GENERATOR SERVICE TETRODE UNIT

Maximum Ratings, Design-Maximum Values:

PLATE A VOLTAGE 330 max. volts
 PLATE B VOLTAGE 330 max. volts
 GRID-No.2 (SCREEN-GRID)
 SUPPLY VOLTAGE. 330 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 50 max. volts
 Positive-bias value 0 max. volts

GRID-No.2 INPUT:

For grid-No.2 voltages
 up to 165 volts 0.65 max. watt
 For grid-No.2 voltages
 between 165 and 330 volts . See *Grid-No.2 Input Rating Chart*
at front of Receiving Tube Section

PLATE A DISSIPATION 1.5 max. watts

PLATE B DISSIPATION 1.5 max. watts

PEAK HEATER-CATHODE VOLTAGE:

Heater negative with respect to cathode . 200 max. volts
 Heater positive with respect to cathode . 200[•] max. volts

Maximum Circuit Values:

Grid-No.1-Circuit Resistance:

For grid-No.1-resistor-bias operation . 2.2 max. megohms

DIODE UNIT

Maximum Ratings, Design-Maximum Values:

PLATE CURRENT 1 max. ma

Characteristics, Instantaneous Test Condition:

Plate Current for plate volts = 10. 2 ma

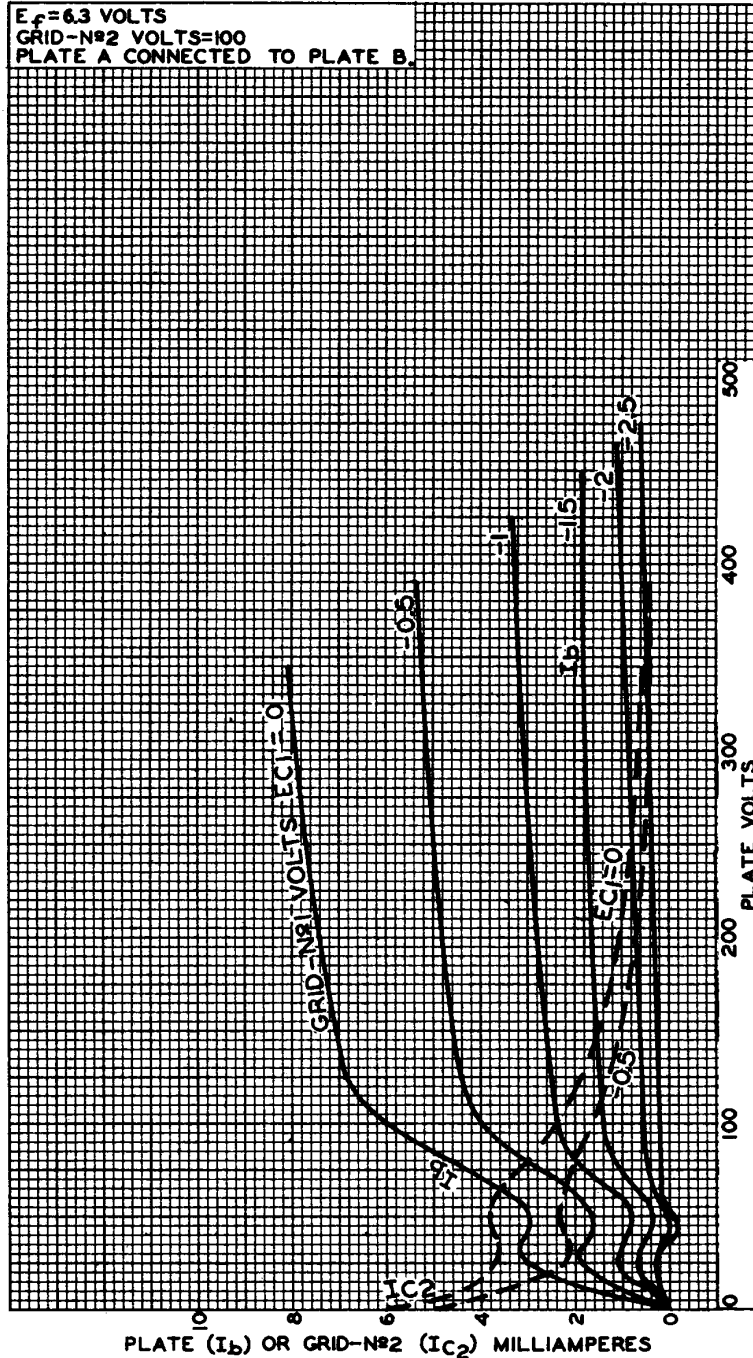
[▲] Without external shield.

[•] The dc component must not exceed 100 volts.



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AVERAGE CHARACTERISTICS Tetrode Unit



92CM-10693

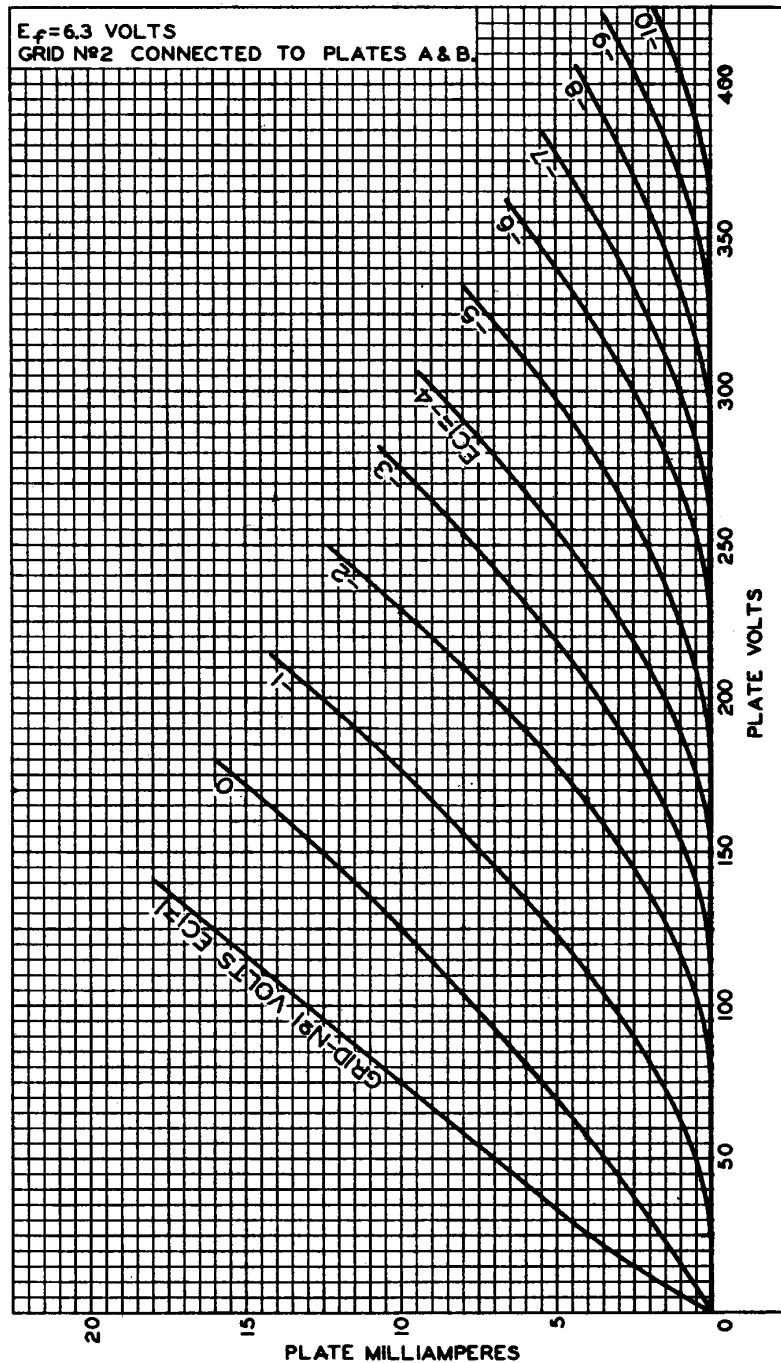


RADIO CORPORATION OF AMERICA
Electron Tube Division
Harrison, N. J.

DATA 2
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AVERAGE PLATE CHARACTERISTICS Tetrode Unit—Triode Connection



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