

## Sharp-Cutoff Twin Pentode With Common Cathode, Grid No.1, and Grid No.2

### 9-PIN MINIATURE TYPE

#### 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:<sup>a</sup>

|                                                             |            |     |
|-------------------------------------------------------------|------------|-----|
| Grid No.3 to plate (Each unit) . . . .                      | 1.9        | μμf |
| Grid No.1 to all other electrodes . .                       | 6          | μμf |
| Grid No.3 to all other electrodes<br>(Each unit) . . . . .  | 3.6        | μμf |
| Plate to all other electrodes<br>(Each unit) . . . . .      | 3          | μμf |
| Grid No.3 (Unit No.1) to grid No.3<br>(Unit No.2) . . . . . | 0.015 max. | μμf |

##### Characteristics, Class A<sub>1</sub> Amplifier:

*With both units operating*

|                                         |          |          |       |
|-----------------------------------------|----------|----------|-------|
| Plate Voltage (Each Unit) . . . . .     | 100      | 100      | volts |
| Grid-No.3 Voltage (Each Unit) . . . . . | -10      | 0        | volts |
| Grid-No.2 Voltage . . . . .             | 67.5     | 67.5     | volts |
| Grid-No.1 Voltage . . . . .             | <b>b</b> | <b>b</b> | volts |
| Plate Current (Each Unit) . . . . .     | -        | 2.2      | ma    |
| Grid-No.2 Current . . . . .             | 6.5      | 3.3      | ma    |
| Cathode Current . . . . .               | 6.6      | 7.8      | ma    |

*With one unit operating<sup>c</sup>*

|                                                            |      |          |       |
|------------------------------------------------------------|------|----------|-------|
| Plate Voltage . . . . .                                    | 100  | 100      | volts |
| Grid-No.3 Voltage . . . . .                                | 0    | 0        | volts |
| Grid-No.2 Voltage . . . . .                                | 67.5 | 67.5     | volts |
| Grid-No.1 Voltage . . . . .                                | 0    | <b>b</b> | volts |
| Grid-No.3-to-Plate Transconductance . .                    | -    | 180      | μmhos |
| Grid-No.1-to-Plate Transconductance . .                    | 1500 | -        | μmhos |
| Plate Current . . . . .                                    | -    | 2.2      | ma    |
| Grid-No.3 Voltage (Approx.) for<br>plate μa = 100. . . . . | -    | -4.5     | volts |
| Grid-No.1 Voltage (Approx.) for<br>plate μa = 100. . . . . | -    | -2.3     | volts |

##### Mechanical:

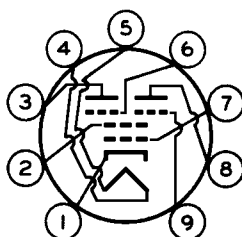
|                                                   |                            |
|---------------------------------------------------|----------------------------|
| Operating Position. . . . .                       | Any                        |
| Maximum Overall Length. . . . .                   | 2-5/8"                     |
| Maximum Seated Length . . . . .                   | 2-3/8"                     |
| Length, Base Seat to Bulb Top (Excluding tip) . . | 2" ± 3/32"                 |
| Diameter. . . . .                                 | 0.750" to 0.875"           |
| Dimensional Outline . . . . .                     | See <i>General Section</i> |
| Bulb. . . . .                                     | T6-1/2                     |



# 6BU8

Base. . . . . Small-Button Noval 9-Pin (JEDEC No.E9-1)  
 Basing Designation for BOTTOM VIEW. . . . . 9FG

Pin 1 - Cathode  
 Pin 2 - Grid No.2,  
           Internal  
           Shield  
 Pin 3 - Plate of  
           Unit No.2  
 Pin 4 - Heater  
 Pin 5 - Heater



Pin 6 - Grid No.3 of  
           Unit No.2  
 Pin 7 - Grid No.1  
 Pin 8 - Plate of  
           Unit No.1  
 Pin 9 - Grid No.3 of  
           Unit No.1

## AMPLIFIER — Class A<sub>1</sub>

### Maximum Ratings, Design-Maximum Values:

|                                                     |                  |      |       |   |
|-----------------------------------------------------|------------------|------|-------|---|
| PLATE VOLTAGE (Each unit). . . . .                  | 300              | max. | volts | ← |
| GRID-No.3 (SUPPRESSOR-GRID) VOLTAGE<br>(Each unit): |                  |      |       |   |
| Peak-positive value. . . . .                        | 50               | max. | volts |   |
| Negative-bias value. . . . .                        | 0                | max. | volts |   |
| Positive-bias value. . . . .                        | 3                | max. | volts |   |
| GRID-No.2 (SCREEN-GRID) VOLTAGE. . . . .            | 150              | max. | volts |   |
| GRID-No.1 (CONTROL-GRID) VOLTAGE:                   |                  |      |       |   |
| Negative-bias value. . . . .                        | 50               | max. | volts |   |
| CATHODE CURRENT. . . . .                            | 12               | max. | ma    |   |
| GRID-No.2 INPUT. . . . .                            | 0.75             | max. | watt  |   |
| PLATE DISSIPATION (Each unit). . . . .              | 1.1              | max. | watts |   |
| PEAK HEATER-CATHODE VOLTAGE:                        |                  |      |       |   |
| Heater negative with respect to cathode.            | 200              | max. | volts |   |
| Heater positive with respect to cathode.            | 200 <sup>d</sup> | max. | volts |   |

### Maximum Circuit Values:

|                                            |     |      |        |
|--------------------------------------------|-----|------|--------|
| Grid-No.3-Circuit Resistance (Each unit) . | 0.5 | max. | megohm |
| Grid-No.1-Circuit Resistance . . . . .     | 0.5 | max. | megohm |

<sup>a</sup> Without external shield.

<sup>b</sup> Adjusted to give a dc grid-No.1 current of 100 microamperes.

<sup>c</sup> With plate and grid No.3 of the other unit connected to ground.

<sup>d</sup> The dc component must not exceed 100 volts.

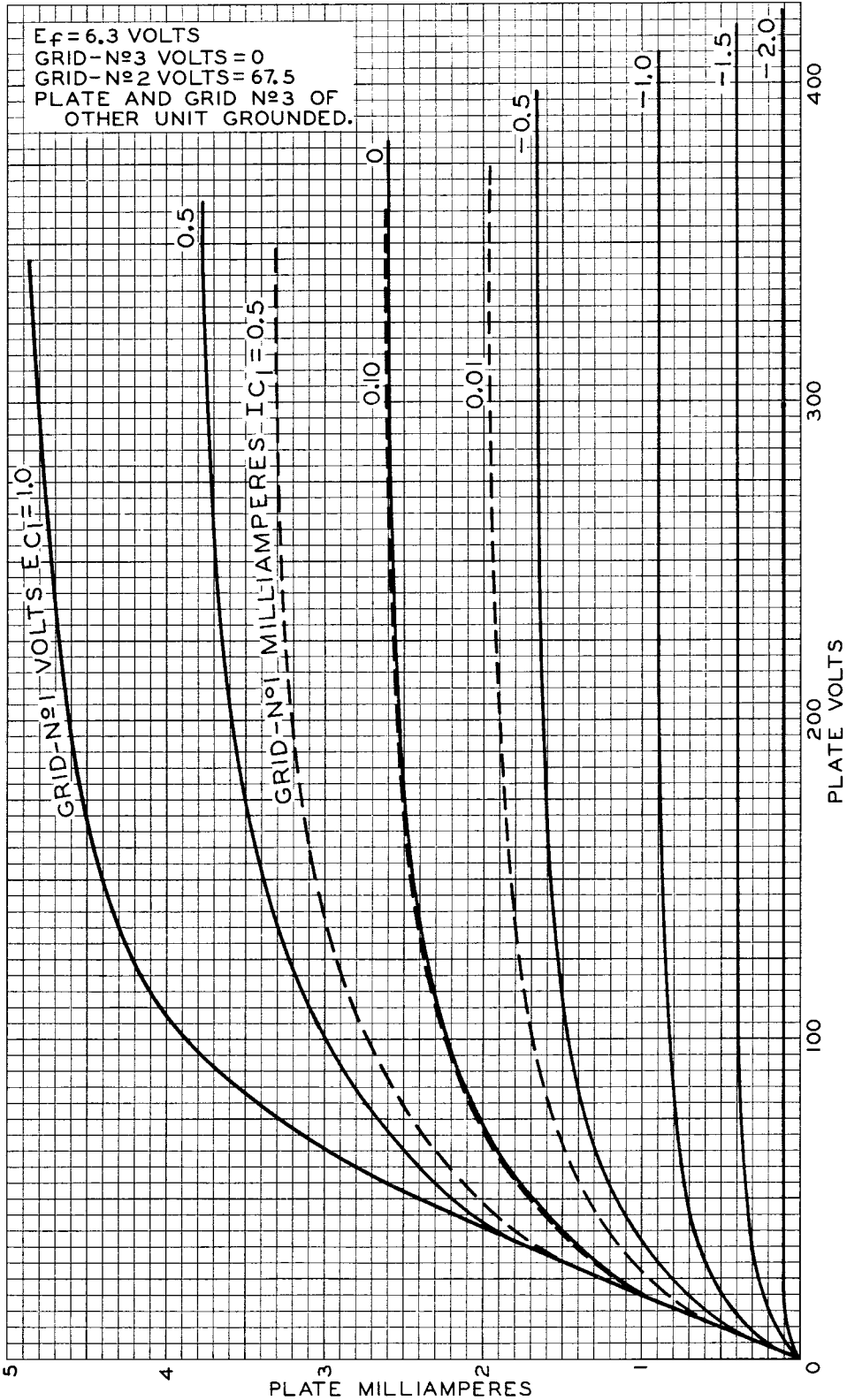
← Indicates a change.



6BU8

6BU8

# AVERAGE PLATE CHARACTERISTICS EACH UNIT

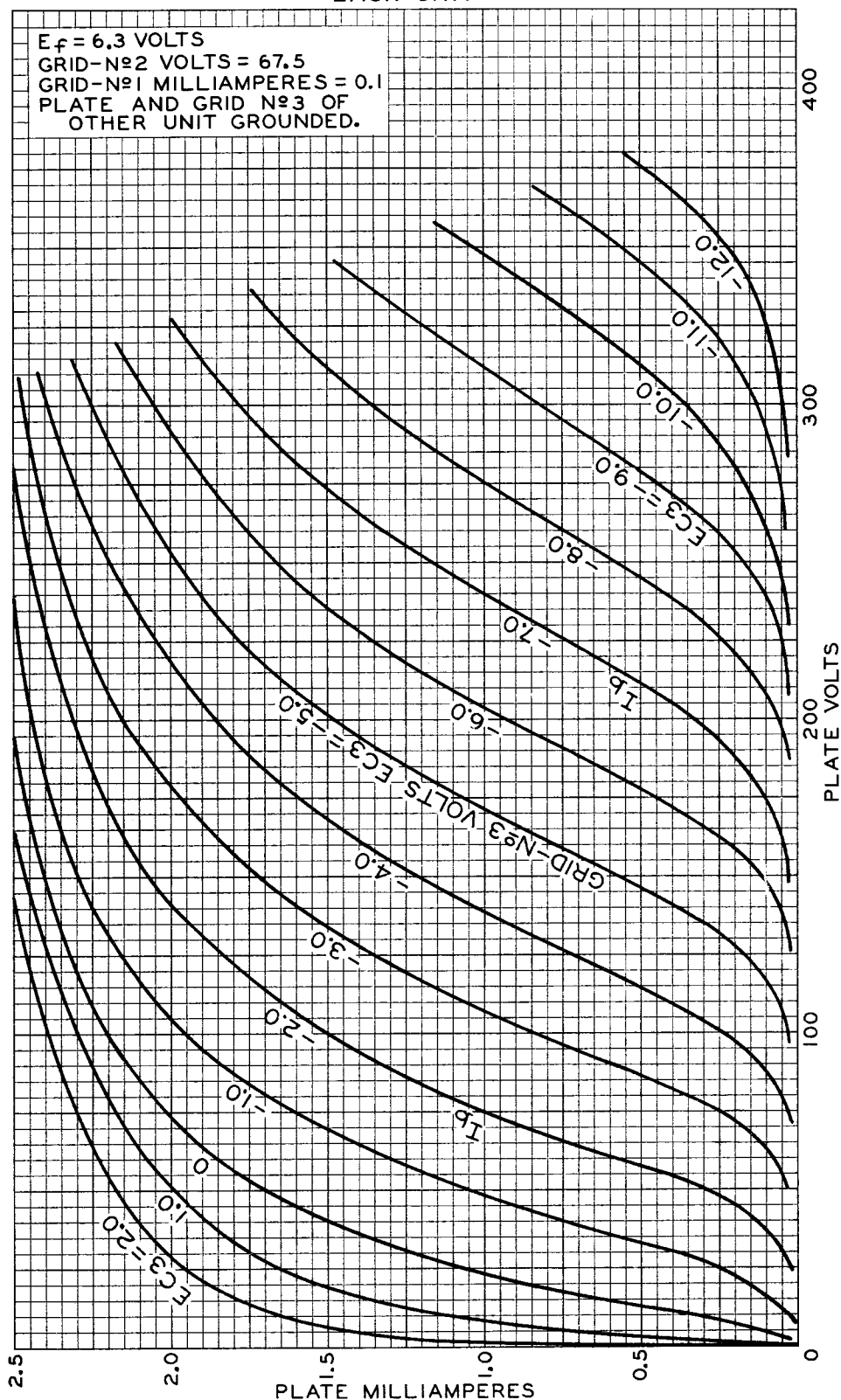


6BU8



6BU8

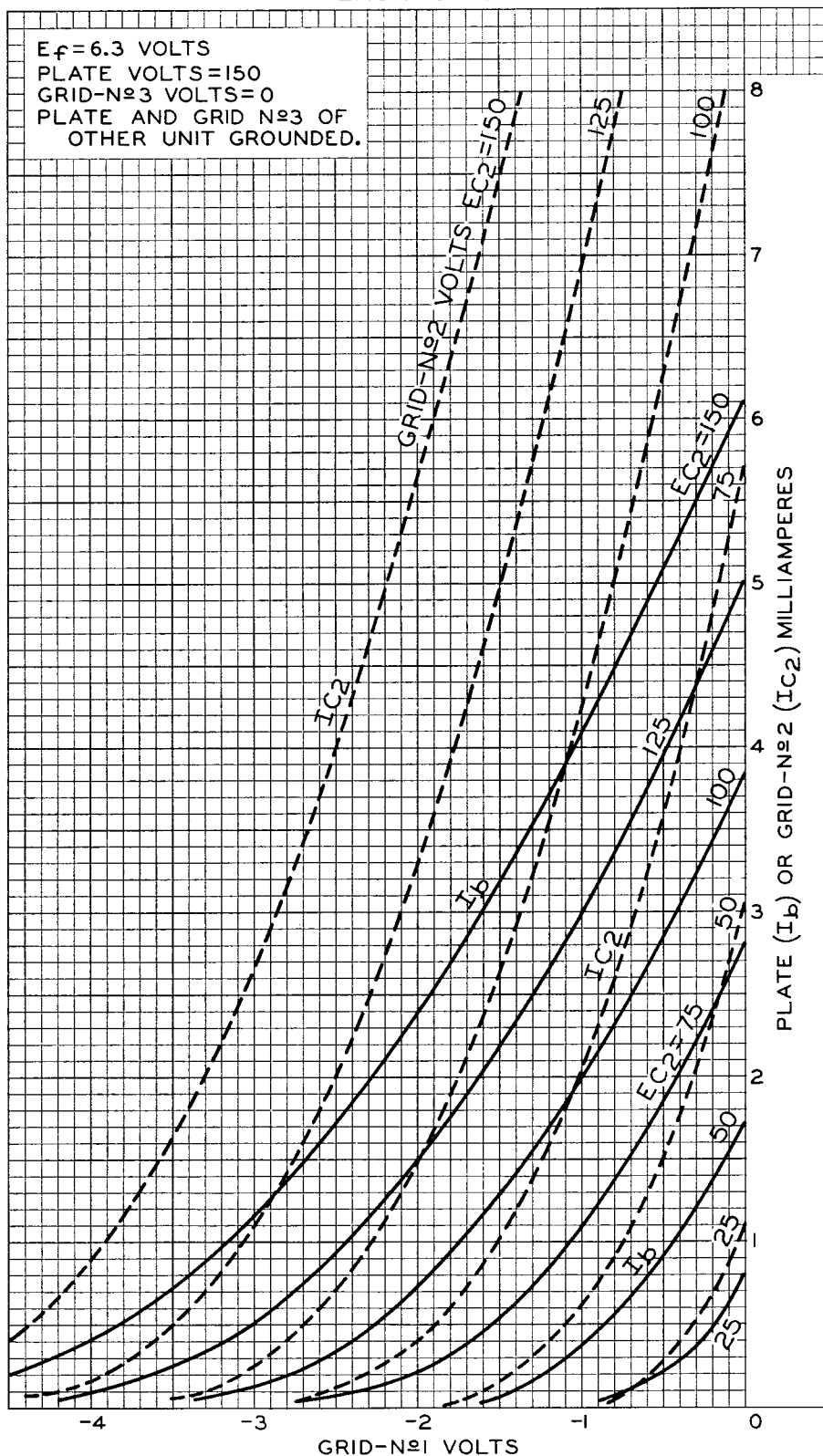
# AVERAGE PLATE CHARACTERISTICS EACH UNIT





6BU8

### AVERAGE CHARACTERISTICS EACH UNIT



ELECTRON TUBE DIVISION

RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY

92CM-9433

6BU8



6BU8

# AVERAGE CHARACTERISTICS EACH UNIT

$E_f = 6.3$  VOLTS  
PLATE VOLTS = 150  
GRID-Nº1 MILLIAMPERES = 0.1  
PLATE AND GRID Nº3 OF  
OTHER UNIT GROUND.

