

# 6BU8

## 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 (Each unit) . . . . .	3.6	μμf
Plate to all other electrodes (Each unit) . . . . .	3	μμf
Grid No.3 (Unit No.1) to grid No.3 (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	μμhos
Grid-No.1-to-Plate Transconductance . . . . .	1500	-	μμhos
Plate Current . . . . .	-	2.2	ma
Grid-No.3 Voltage (Approx.) for plate μa = 100. . . . .	-	-4.5	volts
Grid-No.1 Voltage (Approx.) for plate μa = 100. . . . .	-	-2.3	volts

##### Mechanical:

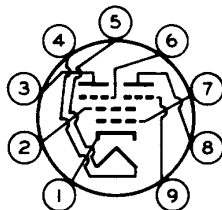
Operating Position. . . . .	Any
Maximum Overall Length. . . . .	2-5/8"
Maximum Seated Length . . . . .	2-3/8"
Length, Base Seat to Bulb Top (Excluding tip) . . . . .	2" ± 3/32"
Diameter. . . . .	0.750" to 0.875"
Dimensional Outline . . . . .	See <i>General Section</i>
Bulb. . . . .	T6-1/2



# 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 (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.

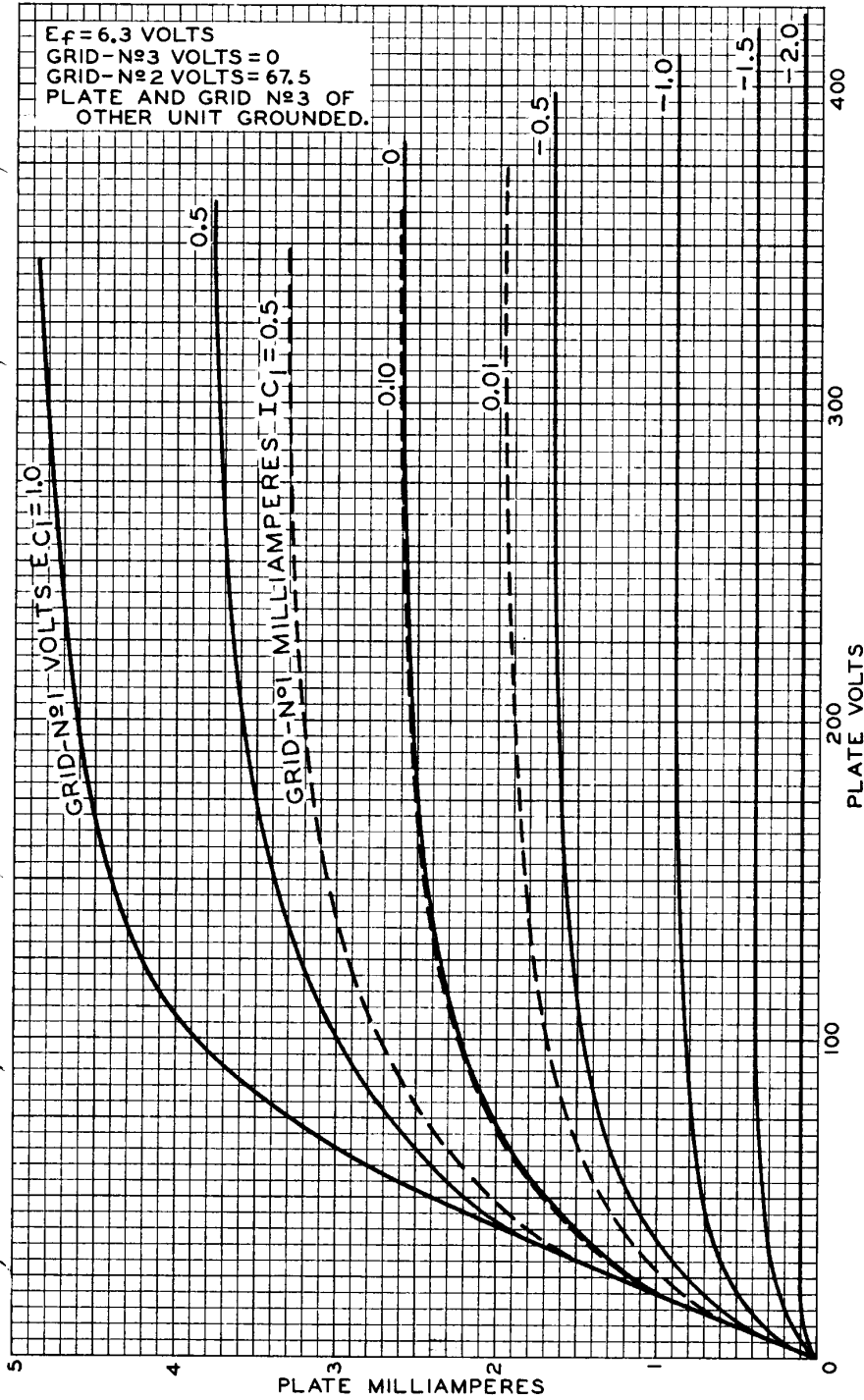




6BU8

AVERAGE PLATE CHARACTERISTICS  
EACH UNIT

6BU8

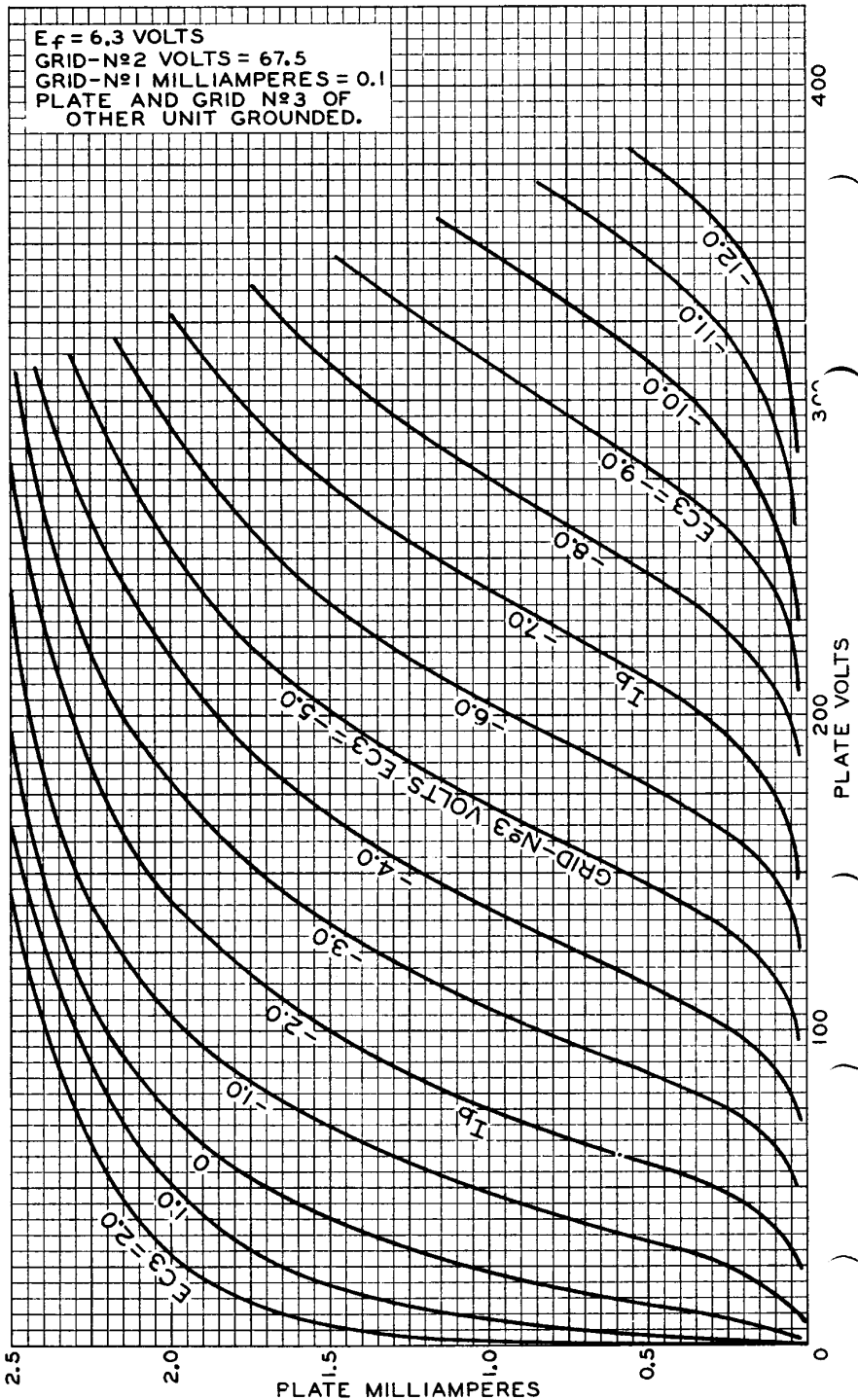


6BU8



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### AVERAGE PLATE CHARACTERISTICS EACH UNIT

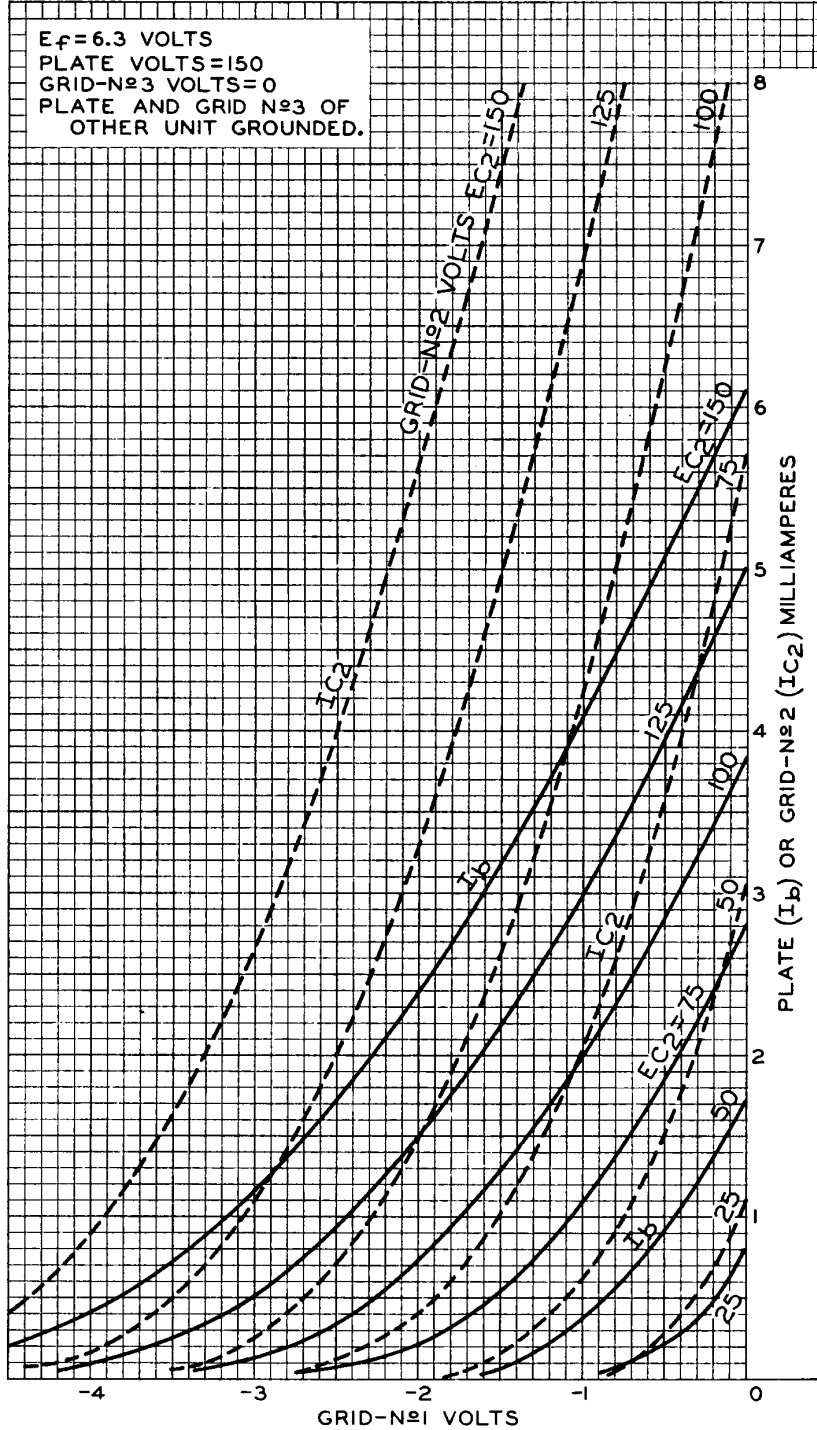




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