

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:^a

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 A₁ 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	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^c

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	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 plate μa = 100.	-	-4.5	volts
Grid-No.1 Voltage (Approx.) for plate μa = 100.	-	-2.3	volts

Mechanical:

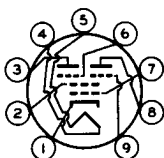
Operating Position.	Any
Maximum Overall Length.	2-5/8"
Maximum Seated Length	2-3/8"
Length, Base Seat to Bulb Top (Excluding tip)	2" ± 3/32"
Diameter.	0.750" to 0.875"
Dimensional Outline	See <i>General Section</i>
Bulb.	T6-1/2



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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 A₁

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 ^d	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

^a Without external shield.

^b Adjusted to give a dc grid-No. 1 current of 100 microamperes.

^c With plate and grid No. 3 of the other unit connected to ground.

^d The dc component must not exceed 100 volts.

← Indicates a change.

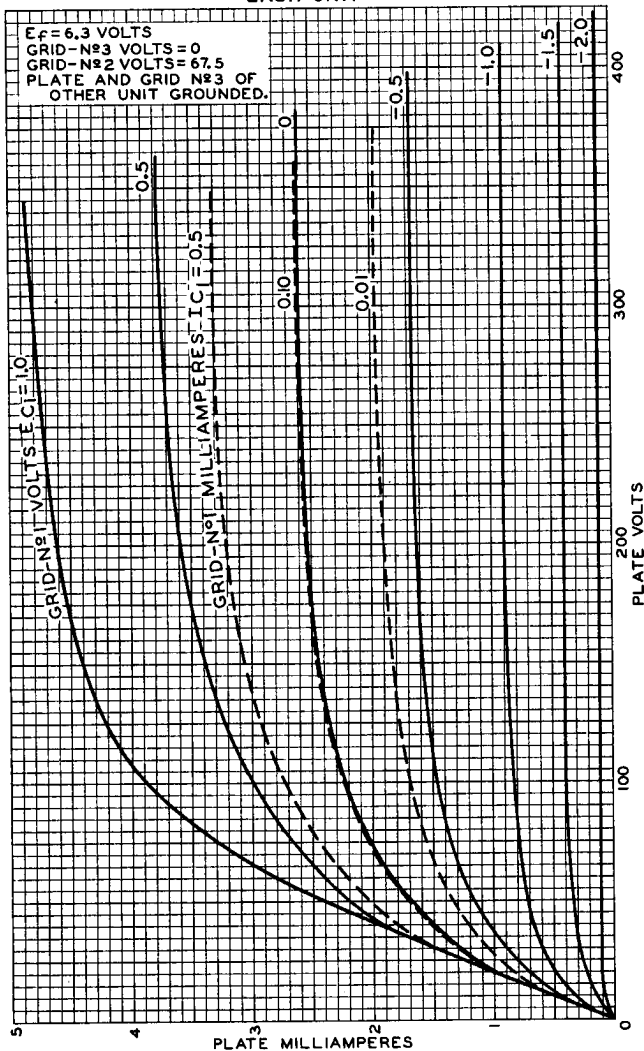




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AVERAGE PLATE CHARACTERISTICS EACH UNIT

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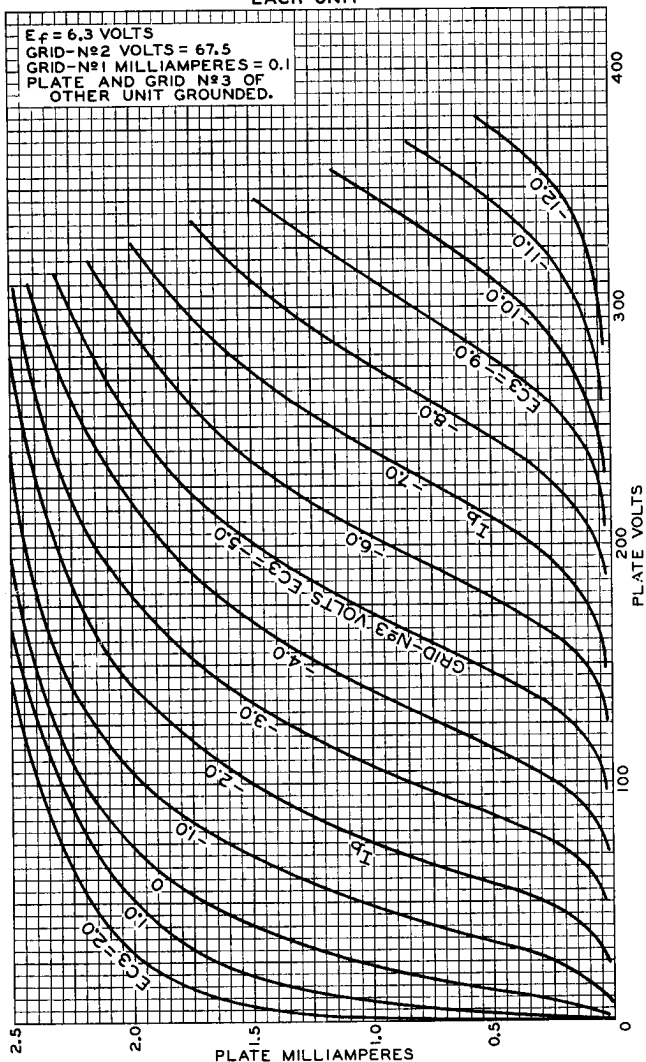


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AVERAGE PLATE CHARACTERISTICS EACH UNIT



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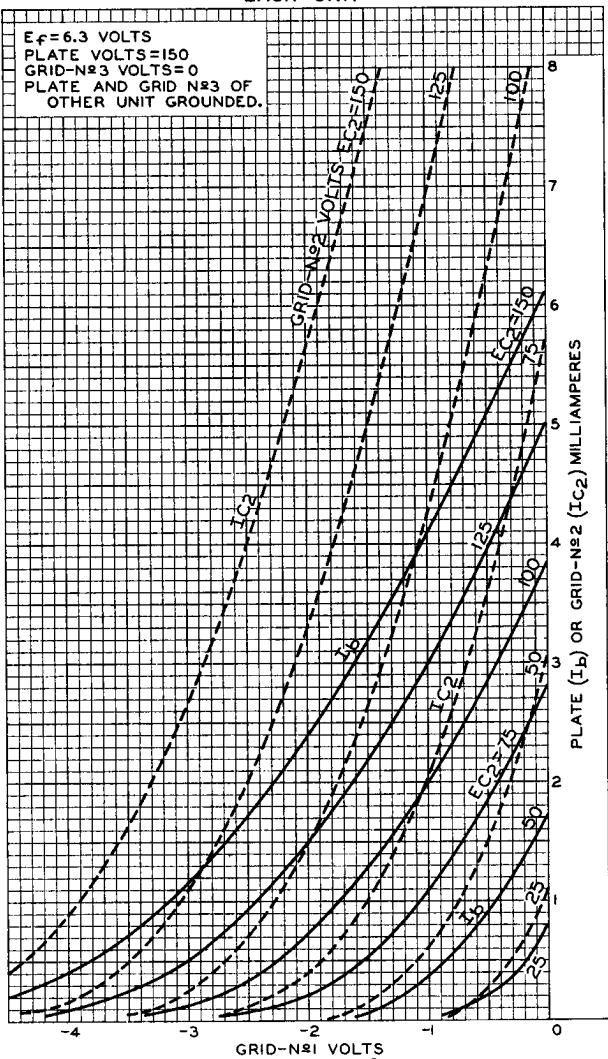


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AVERAGE CHARACTERISTICS EACH UNIT

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$E_f = 6.3$ VOLTS
PLATE VOLTS = 150
GRID-Nº3 VOLTS = 0
PLATE AND GRID Nº3 OF
OTHER UNIT GROUND.



GRID-Nº1 VOLTS

PLATE (I_b) OR GRID-Nº2 (I_{c2}) MILLIAMPERES

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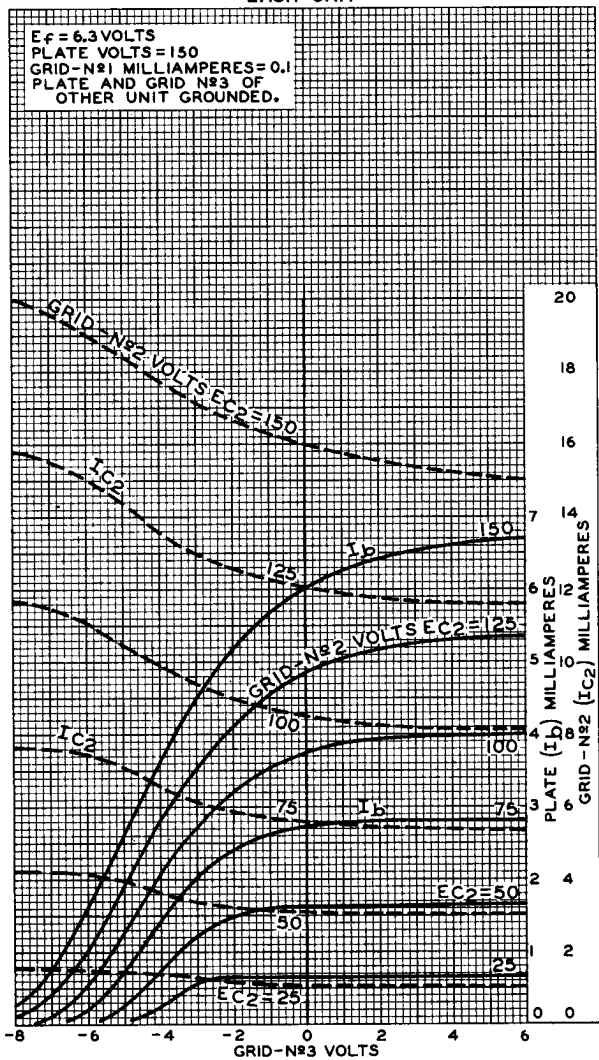
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AVERAGE CHARACTERISTICS EACH UNIT

$E_f = 6.3$ VOLTS
 PLATE VOLTS = 150
 GRID-N^o1 MILLIAMPERES = 0.1
 PLATE AND GRID N^o3 OF
 OTHER UNIT GROUND.



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