

Sharp-Cutoff Twin Pentode

With Common Cathode, Grid No.1, & Grid No.2

9-PIN MINIATURE TYPE

GENERAL DATA

Electrical:

Heater Characteristics and Ratings (*Design-Maximum Values*):

Voltage (AC or DC) 6.3 ± 0.6 volts
 Current at heater volts = 6.3 0.300 amp

Peak heater-cathode voltage:

Heater negative with respect to cathode. 200 max. volts

Heater positive with respect to cathode. 200^a max. volts

Direct Interelectrode Capacitances:^b

Grid No.3 to plate (Each unit) 2.0 pf

Grid No.1 to all other electrodes 6.0 pf

Grid No.3 (Each unit) to all other electrodes. 3.6 pf

Plate (Each unit) to all other electrodes. 3.0 pf

Grid No.3 (Unit No.1) to grid No.3 (Unit No.2) 0.015 max. pf

Characteristics, Class A₁ Amplifier:

With one unit operating and plate and grid No.3 of other unit connected to ground

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 ^c volts

Grid-No.3-to-Plate Transconductance - 450 μ hos

Grid-No.1-to-Plate Transconductance 1100 - μ hos

Plate Current - 2 ma

Grid-No.3 Voltage (Approx.) for plate μ a = 100. - -3.5 volts ←

Grid-No.1 Voltage (Approx.) for plate μ a = 100. - -2.3 volts

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 ^c 67.5 volts

Grid-No.1 Voltage ^c ^c volts

Plate Current (Each unit) - 2 ma

Grid-No.2 Current 7 4.4 ma

Cathode Current 7.1 8.5 ma

← Indicates a change.



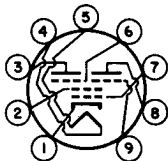
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Mechanical:

Operating Position. Any
 Type of Cathode Coated Unipotential
 Maximum Overall Length. 2-5/8"
 Maximum Seated Length 2-3/8"
 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, 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
DC negative value	50 max.	volts
DC positive 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

Maximum Circuit Values:

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

^a The dc component must not exceed 100 volts.

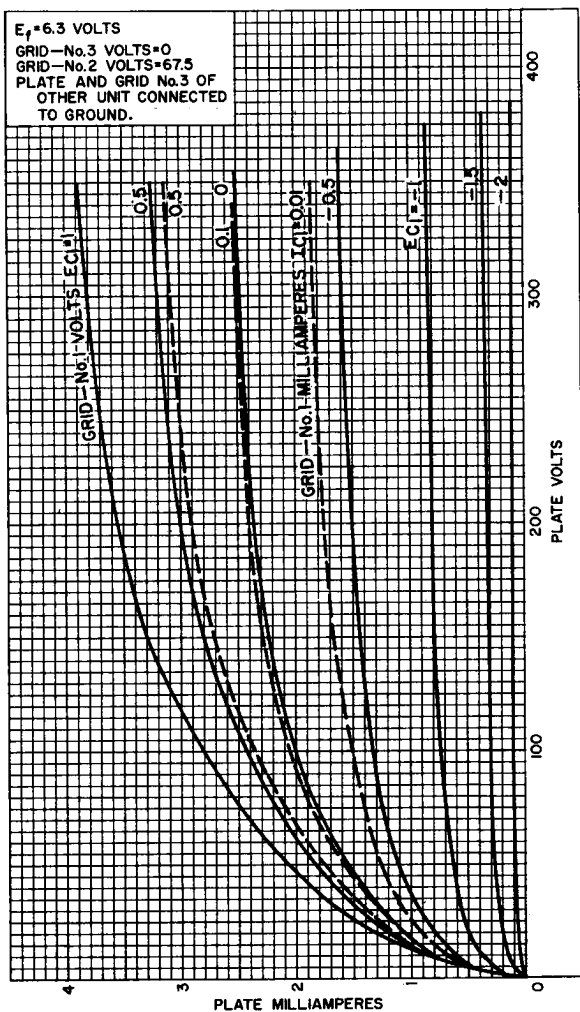
^b Without external shield.

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

→ Indicates a change.



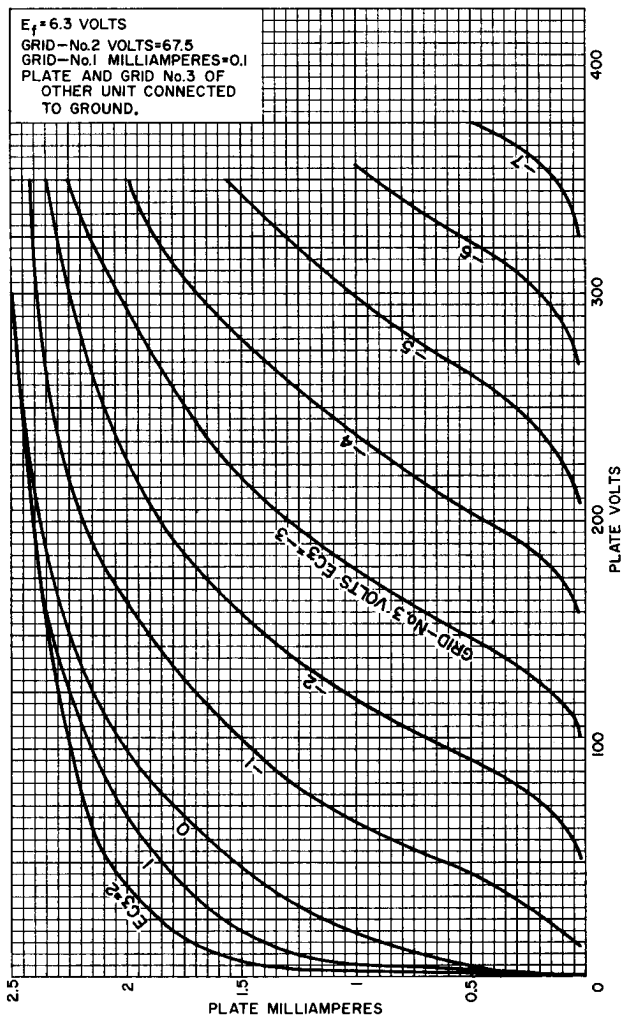
AVERAGE PLATE CHARACTERISTICS Each Unit



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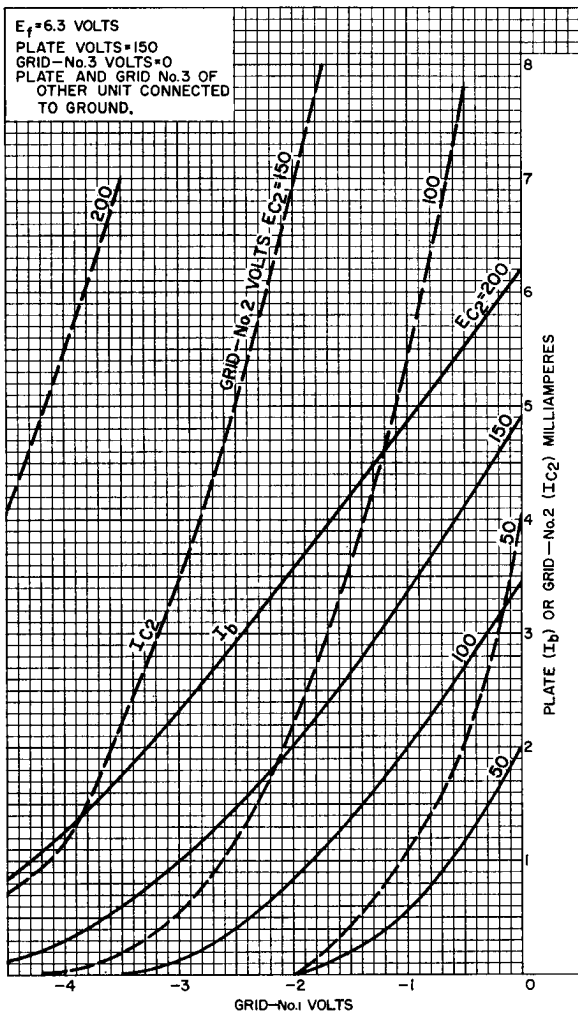
AVERAGE PLATE CHARACTERISTICS Each Unit



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AVERAGE CHARACTERISTICS Each Unit



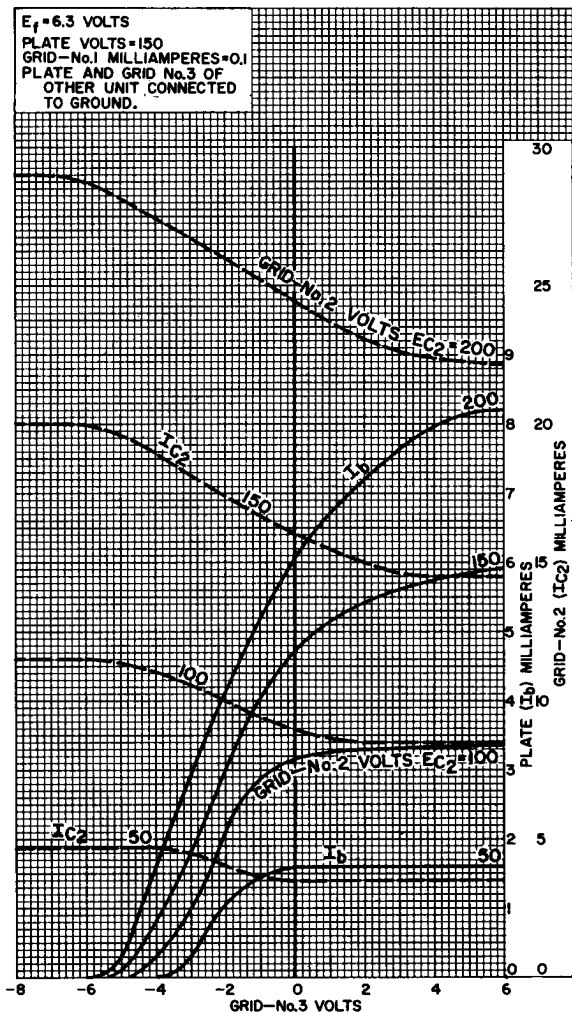
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AVERAGE CHARACTERISTICS Each Unit

$E_f = 6.3$ VOLTS
PLATE VOLTS = 150
GRID-No.1 MILLIAMPERES = 0.1
PLATE AND GRID No.3 OF
OTHER UNIT CONNECTED
TO GROUND.



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