



6EB8

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HIGH-MU TRIODE— SHARP-CUTOFF PENTODE

9-PIN MINIATURE TYPE

GENERAL DATA

Electrical:

Heater, for Unipotential Cathodes:

| | | | |
|-------------------|-----------|-----------|----------------|
| Voltage | 6.3 ± 10% | | ac or dc volts |
| Current | 0.75 | | amp |

Direct Interelectrode Capacitances:⁰

Triode Unit:

| | | |
|-----------------------------------|------|----|
| Grid to plate | 4.4 | μf |
| Grid to cathode and heater . . . | 2.4 | μf |
| Plate to cathode and heater . . . | 0.36 | μf |

Pentode Unit:

| | | |
|--|------------|----|
| Grid No.1 to plate | 0.1 max. | μf |
| Grid No.1 to cathode & internal shield & grid No.3, grid No.2, and heater | 11 | μf |
| Plate to cathode & internal shield & grid No.3, grid No.2, and heater | 4.2 | μf |
| Triode grid to pentode plate . . . | 0.018 max. | μf |
| Pentode grid No.1 to triode plate. | 0.005 max. | μf |
| Pentode plate to triode plate . . . | 0.17 max. | μf |

Characteristics, Class A₁ Amplifier:

| | Triode Unit | Pentode Unit | |
|---|----------------|-----------------|-------|
| Plate-Supply Voltage | 250 | 45 200 | volts |
| Grid-No.2 Supply Voltage | - | 125 125 | volts |
| Grid-No.1 Voltage | -2 | 0 - | volts |
| Cathode Resistor | - | - 68 | ohms |
| Amplification Factor | 100 | - - | |
| Plate Resistance (Approx.) | 37000 | - 75000 | ohms |
| Transconductance | 2700 | - 12500 | μhos |
| Plate Current | 2 | 40* 25 | ma |
| Grid-No.2 Current | - | 15* 7 | ma |
| Grid-No.1 Voltage (Approx.) for plate μa = 100 | - | - -9 | volts |
| Grid Voltage (Approx.) for plate μa = 20 | -5 | - - | 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 General Section |
| Bulb | | T6-1/2 |

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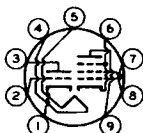


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Base Small-Button Noval 9-Pin (JEDEC No. E9-1)
 Basing Designation for BOTTOM VIEW 9DX

Pin 1 - Triode
 Cathode
 Pin 2 - Triode
 Grid
 Pin 3 - Triode
 Plate
 Pin 4 - Heater
 Pin 5 - Heater



Pin 6 - Pentode
 Cathode,
 Grid No. 3,
 Internal
 Shield
 Pin 7 - Pentode
 Grid No. 1
 Pin 8 - Pentode
 Grid No. 2
 Pin 9 - Pentode
 Plate

AMPLIFIER — Class A₁

Maximum Ratings, Design-Maximum Values:

| | Triode Unit | Pentode Unit | |
|---|-------------|---------------------|-------|
| PLATE VOLTAGE | 330 max. | 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: | | | |
| Positive-bias value | 0 max. | 0 max. | volts |
| PLATE DISSIPATION | 1 max. | 5 max. | watts |
| GRID-No.2 INPUT: | | | |
| For grid-No.2 voltages up to 165 volts | - | 1.1 max. | watts |
| For grid-No.2 voltages between 165 and 330 volts | - | See Grid-No.2 Input | |

Rating Chart at front of Receiving Tube Section

| | | | |
|--|-----------------------|-----------------------|-------|
| PEAK HEATER-CATHODE VOLTAGE: | | | |
| Heater negative with respect to cathode | 200 max. | 200 max. | volts |
| Heater positive with respect to cathode | 200 [▲] max. | 200 [▲] max. | volts |

Maximum Circuit Values:

| | Triode Unit | Pentode Unit | |
|---|-------------|--------------|--------|
| Grid-No.1-Circuit Resistance: | | | |
| For fixed-bias operation | 0.5 max. | 0.25 max. | megohm |
| For cathode-bias operation | 1 max. | 1 max. | megohm |



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○ Without external shield.

* This value can be measured by a method involving a recurrent wave form such that the maximum ratings of the tube will not be exceeded.

▲ The dc component must not exceed 100 volts.

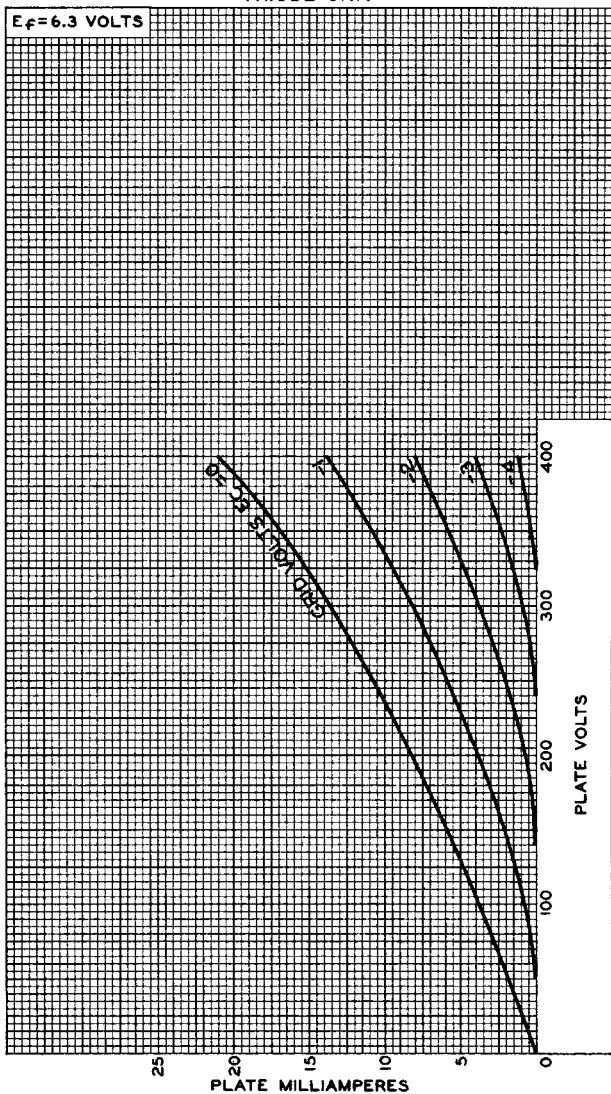
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AVERAGE PLATE CHARACTERISTICS TRIODE UNIT

$E_f = 6.3$ VOLTS



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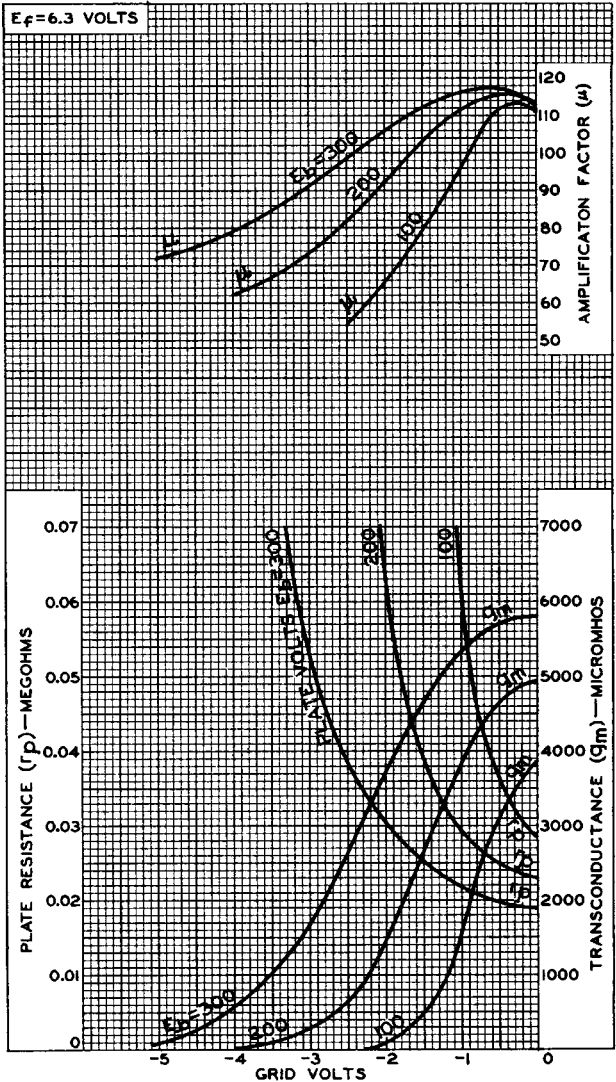
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AVERAGE CHARACTERISTICS
TRIODE UNIT

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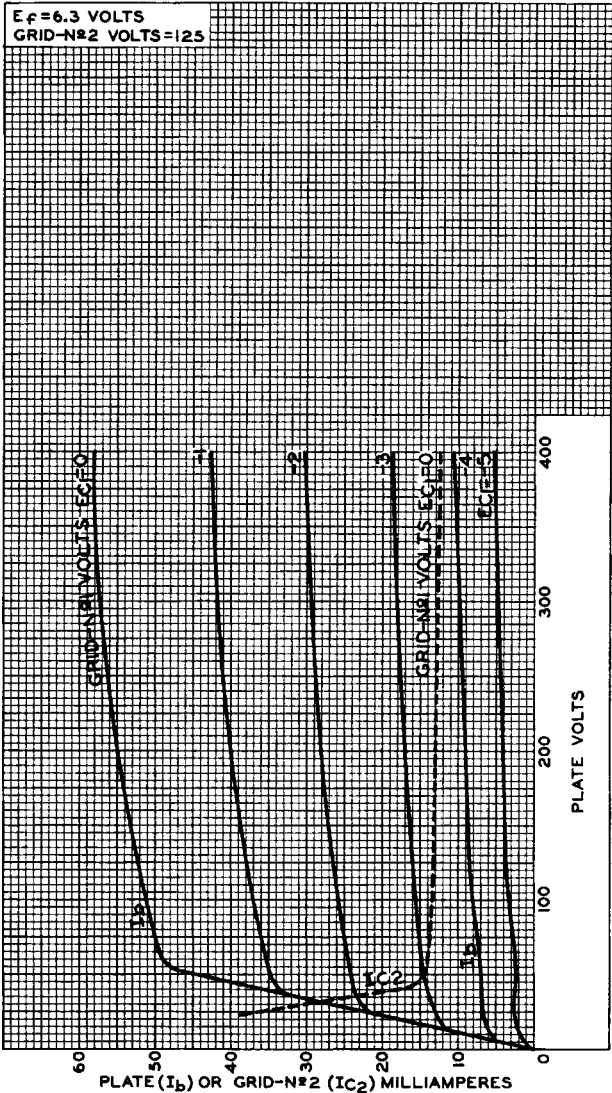
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AVERAGE CHARACTERISTICS PENTODE UNIT

$E_f = 6.3$ VOLTS
GRID-N $\#$ 2 VOLTS = 125



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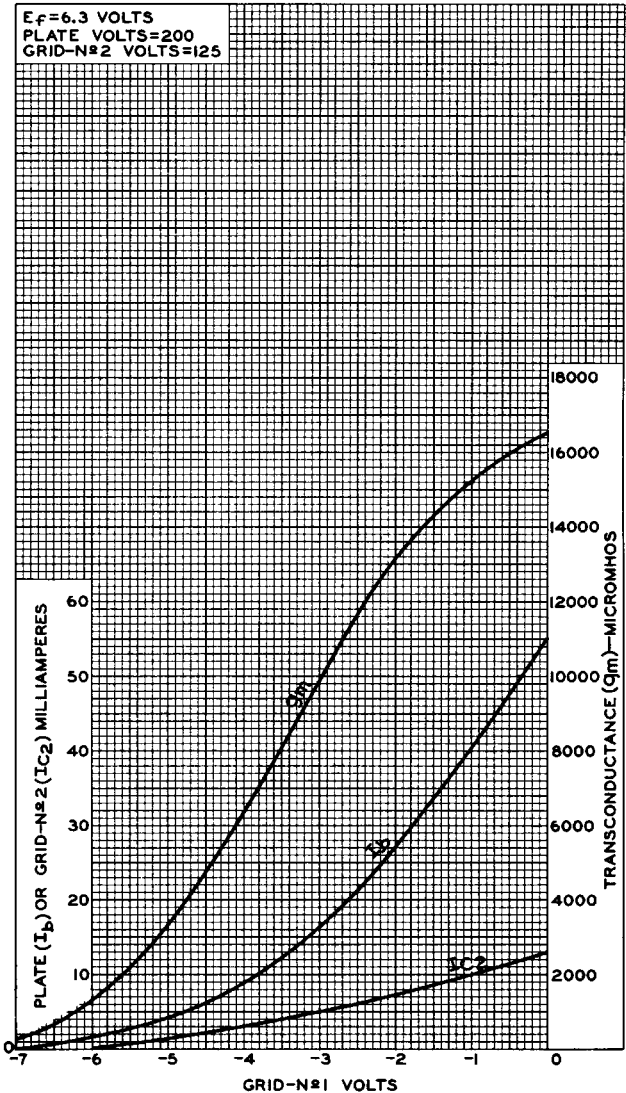


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AVERAGE CHARACTERISTICS PENTODE UNIT

$E_f = 6.3$ VOLTS
PLATE VOLTS = 200
GRID-N $\#$ 2 VOLTS = 125



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