

Sharp-Cutoff Pentode

With Two Independent Control Grids

7-PIN MINIATURE TYPE

With Heater Having Controlled Warm-Up Time

GENERAL DATA

Electrical:

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

Voltage (AC or DC) 6.3^a 6.3 ± 0.6 volts

Current 0.450 ± 0.030 0.450^b amp

Warm-up time (Average) 11 — sec

Peak heater-cathode voltage:

Heater negative with
respect to cathode 200 max. volts

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

Direct Interelectrode Capacitances

(Approx):^d

Grid No.1 to plate 0.023 pf

Grid No.1 to cathode & internal

shield, grid No.3, grid No.2

& internal shield, and heater 8.2 pf

Grid No.1 to grid No.3 0.09 pf

Grid No.3 to plate 1.6 pf

Grid No.3 to cathode & internal

shield, plate, grid No.2 &

internal shield, grid No.1,

and heater 7.2 pf

Characteristics, Class A₁ Amplifier:

Plate Supply Voltage 150 volts

Grid-No.3 Supply Voltage 0 volts

Grid-No.2 Supply Voltage 100 volts

Grid-No.1 Supply Voltage 0 volts

Cathode Resistor 180 ohms

Plate Resistance (Approx.) 0.11 megohm

Transconductance, Grid No.1 to Plate 3400 μ mhos

Transconductance, Grid No.3 to Plate 600 μ mhos

Plate Current 3.2 ma

Grid-No.2 Current 3.2 ma

Grid-No.1 Supply Voltage (Approx.)

for plate μ a = 20 -4.5 volts

Grid-No.3 Supply Voltage (Approx.)

for plate μ a = 20 -7 volts

Mechanical:

Operating Position Any

Type of Cathode Coated Unipotential

Maximum Overall Length 2-1/8"

Maximum Seated Length 1-7/8"

Length, Base Seat to Bulb Top (Excluding tip) 1-1/2" ± 3/32"

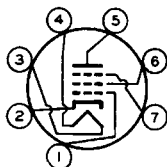
Diameter 0.650" to 0.750"



6HZ6

Bulb. T5-1/2
 Base. Small-Button Miniature 7-Pin (JEDEC No.E7-1)
 Basing Designation For BOTTOM VIEW. 7EN

Pin 1-Grid No.1
 Pin 2-Cathode,
 Internal
 Shield
 Pin 3-Heater



Pin 4-Heater
 Pin 5-Plate
 Pin 6-Grid No.2,
 Internal
 Shield
 Pin 7-Grid No.3

FM SOUND-DETECTOR SERVICE

Maximum Ratings, Design-Maximum Values:

PLATE VOLTAGE	300	max.	volts
GRID-No.3 (CONTROL-GRID) VOLTAGE:			
Negative value (DC and peak)	100	max.	volts
Positive value (DC and peak)	25	max.	volts
GRID-No.2 (SCREEN-GRID) SUPPLY VOLTAGE	300	max.	volts
GRID-No.2 VOLTAGE	See <i>Grid-No.2 Input Rating Chart</i> at front of Receiving Tube Section		
GRID-No.1 (CONTROL-GRID) VOLTAGE:			
Negative-bias value	50	max.	volts
Positive-bias value	0	max.	volts
GRID-No.3 INPUT	0.1	max.	watt
GRID-No.2 INPUT:			
For grid-No.2 voltages			
up to 150 volts	1	max.	watt
For grid-No.2 voltages between			
150 volts and 300 volts	See <i>Grid-No.2 Input Rating Chart</i> at front of Receiving Tube Section		
PLATE DISSIPATION	1.7	max.	watts

Maximum Circuit Values:

Grid-No.3-Circuit Resistance.	0.68	max.	megohm
Grid-No.1-Circuit Resistance:			
For fixed-bias operation.	0.22	max.	megohm
For cathode-bias operation.	0.47	max.	megohm

^a At heater amperes = 0.450.

^b At heater volts = 6.3.

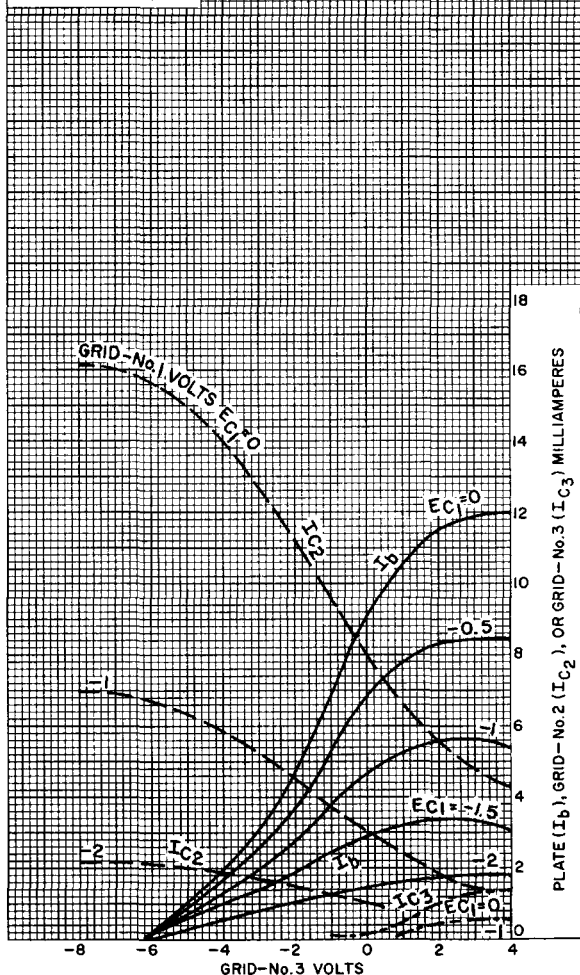
^c The dc component must not exceed 100 volts.

^d without external shield.



AVERAGE CHARACTERISTICS

$E_f = 6.3$ VOLTS
 PLATE VOLTS = 150
 GRID-No.2 VOLTS = 100

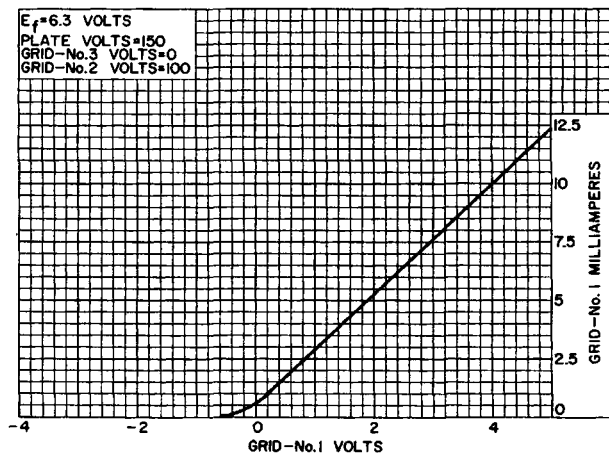


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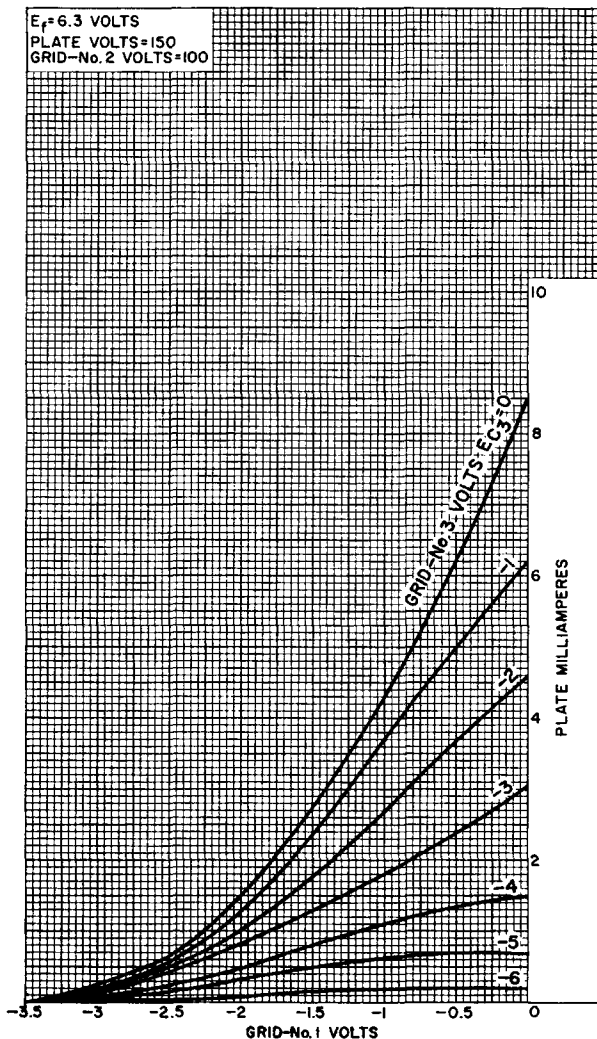
AVERAGE GRID-No.1 CHARACTERISTIC



92CS-11004



AVERAGE CHARACTERISTICS

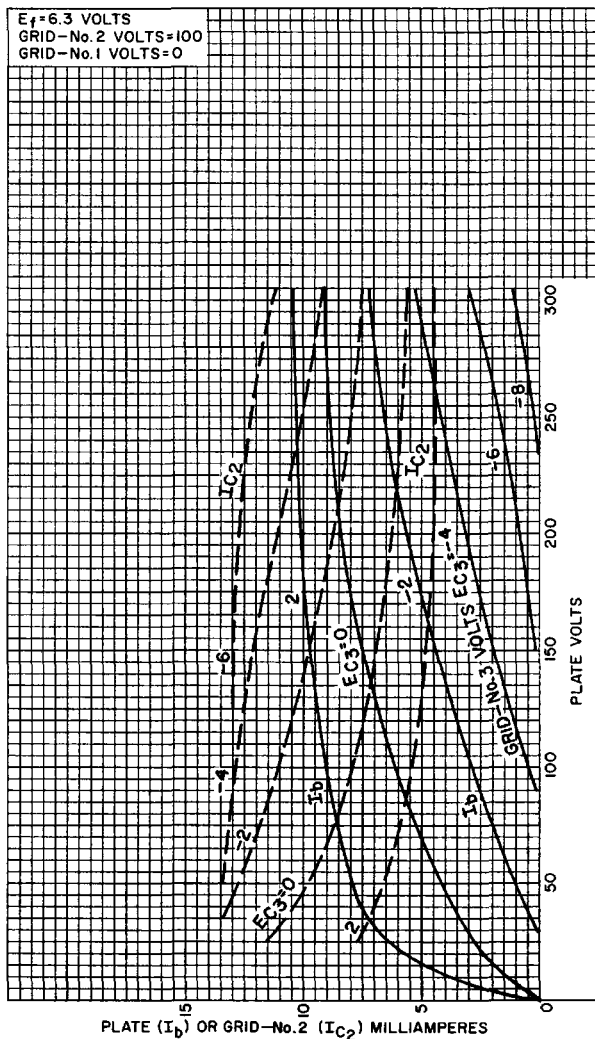


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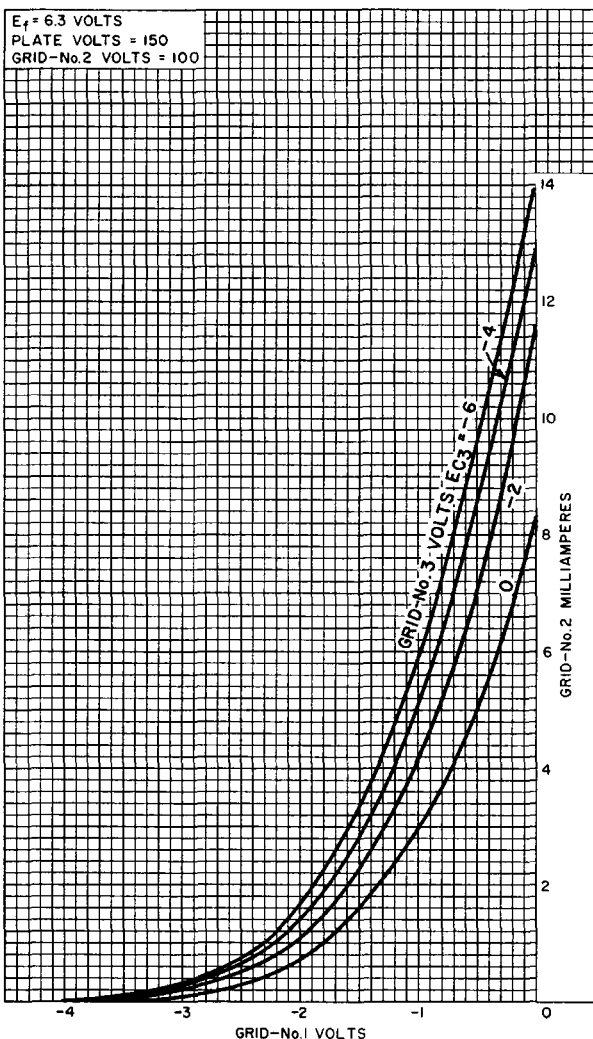
AVERAGE CHARACTERISTICS



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AVERAGE CHARACTERISTICS

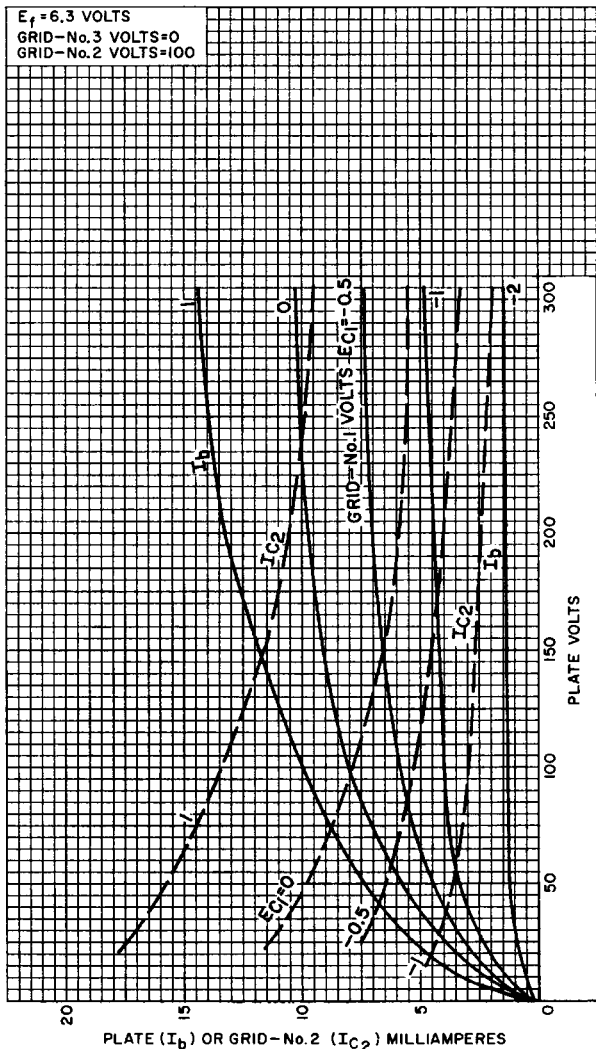


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AVERAGE CHARACTERISTICS



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