

## Power Pentode

## 7-PIN MINIATURE TYPE

## GENERAL DATA

## Electrical:

Heater, for Unipotential Cathode:

Voltage (AC or DC) . . . . .	35 ± 10%	volts
Current at 35 volts . . . . .	0.15	amp

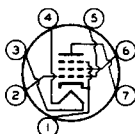
Direct Interelectrode Capacitances  
(Approx.):<sup>A</sup>

Grid No.1 to plate . . . . .	0.65	μf
Grid No.1 to cathode & grid No.3, grid No.2, and heater . . . . .	17	μf
Plate to cathode & grid No.3, grid No.2, and heater . . . . .	9	μf

## 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 . . . . .	0.650" to 0.750"
Dimensional Outline . . . . .	See <i>General Section</i>
Bulb . . . . .	T5-1/2
Base . . . . .	Small-Button Miniature 7-Pin (JEDEC No.E7-1)
Basing Designation for BOTTOM VIEW . . . . .	7CV

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



Pin 4 - Heater  
Pin 5 - Grid No.1  
Pin 6 - Grid No.2  
Pin 7 - Plate

AF POWER AMPLIFIER — Class A<sub>1</sub>

Maximum Ratings, Design-Maximum Values:

PLATE VOLTAGE . . . . .	150	max.	volts
GRID-No.2 (SCREEN-GRID) VOLTAGE . . . . .	130	max.	volts
GRID-No.1 (CONTROL-GRID) VOLTAGE:			
Positive-bias value . . . . .	0	max.	volts
GRID-No.2 INPUT . . . . .	1.75	max.	watts
PLATE DISSIPATION . . . . .	5	max.	watts
PEAK HEATER-CATHODE VOLTAGE:			
Heater negative with respect to cathode . . . . .	200	max.	volts
Heater positive with respect to cathode . . . . .	200*	max.	volts
BULB TEMPERATURE (At hottest point on bulb surface) . . . . .	225	max.	°C



# 35EH5

## Typical Operation and Characteristics:

Plate Supply Voltage. . . . .	110	volts
Grid-No.2 Supply Voltage. . . . .	115	volts
Cathode Resistor. . . . .	62	ohms
Peak AF Grid-No.1 Voltage . . . . .	3	volts
Zero-Signal Plate Current . . . . .	32	ma
Max.-Signal Plate Current . . . . .	32	ma
Zero-Signal Grid-No.2 Current . . . . .	7.2	ma
Max.-Signal Grid-No.2 Current . . . . .	12	ma
Plate Resistance (Approx.). . . . .	14000	ohms
Transconductance. . . . .	12000	$\mu$ mhos
Load Resistance . . . . .	3000	ohms
Total Harmonic Distortion . . . . .	8	%
Max.-Signal Power Output. . . . .	1.2	watts

## Maximum Circuit Values:

Grid-No.1-Circuit Resistance:

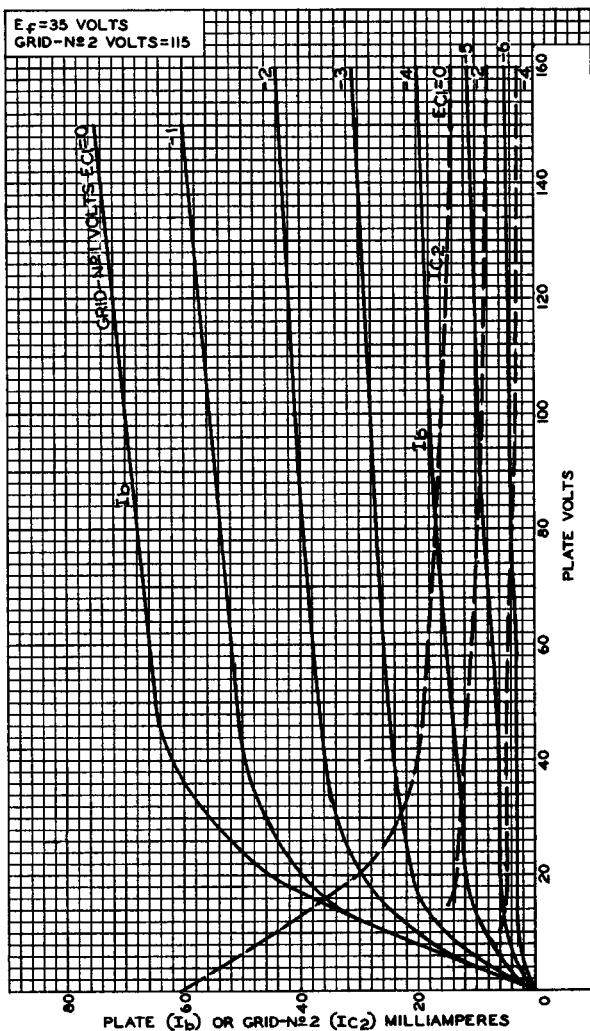
For fixed-bias operation. . . . .	0.1 max.	megohm
For cathode-bias operation. . . . .	0.5 max.	megohm

▲ Without external shield.

● The dc component must not exceed 100 volts.



## AVERAGE CHARACTERISTICS



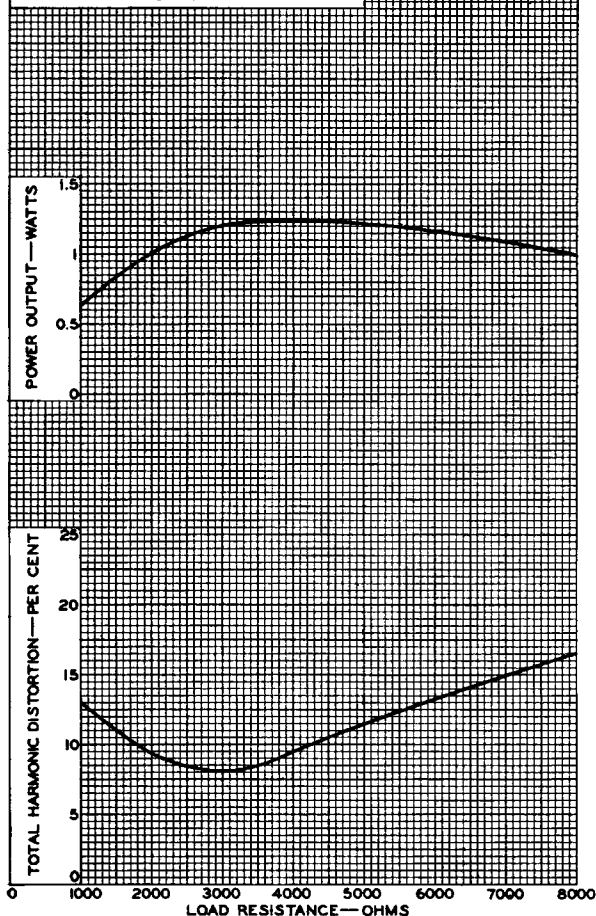
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# 35EH5

## OPERATION CHARACTERISTICS

$E_f = 35$  VOLTS  
PLATE SUPPLY VOLTS = 110  
GRID- $N_2$  SUPPLY VOLTS = 115  
CATHODE RESISTOR (OHMS) = 62  
CATHODE-BYPASS CAPACITOR ( $\mu f$ ) = 100  
SIGNAL VOLTS (RMS) = 2.1



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