Beam Power Tube

7-PIN MINIATURE TYPE

GENERAL DATA

Electrical:

Heater, for Unipotential Cathode:

- Voltage (AC or DC) ........ 6.3 volts
- Current .................... 1.2 amp

Direct Interelectrode Capacitances (Approx.):

- Grid No.1 to plate ............ 0.5 μf
- Grid No.1 to cathode & grid No.3,
  grid No.2, and heater .......... 15 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 General Section
- Bulb ......................... T5-1/2
- Base ......................... Small-Button Miniature 7-Pin (JEDEC No.E7-1)
- Basing Designation for BOTTOM VIEW ........ 7CV

![Diagram of pin connections]

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

AMPLIFIER — Class A

Maximum Ratings, Design-Center Values:

- PLATE VOLTAGE ................. 130 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 ............... 1.4 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) .............. 180 max. °C

Typical Operation and Characteristics:

- Plate Voltage ................ 110 125 volts
- Grid-No.2 Voltage ............. 110 125 volts
Grid-No.1 Voltage ............... -4  -4.5 volts
Peak AF Grid-No.1 Voltage .......... 4  4.5 volts
Zero-Signal Plate Current .......... 32  37 ma
Max.-Signal Plate Current .......... 31  36 ma
Zero-Signal Grid-No.2 Current .......... 3.5  4 ma
Max.-Signal Grid-No.2 Current .......... 7.5  11 ma
Plate Resistance (Approx.) .......... 16000  15000 ohms
Transconductance ................. 8100  9200 μhos
Load Resistance ................. 3500  4500 ohms
Total Harmonic Distortion .......... 5  6 %
Max.-Signal Power Output .......... 1.1  1.5 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

a Without external shield.
b The dc component must not exceed 100 volts.