Sharp-Cutoff Tetrode

7-PIN MINIATURE TYPE
For Mobile-Communications Equipment

GENERAL DATA

Electrical:
Heater Characteristics and Ratings (Design-Maximum Values):
- Voltage (AC or DC) ........................................... 6.3 +1.2 -0.3 volts
- Current at heater volts = 6.3 .................................. 0.200 amp
- Peak heater-cathode voltage:
  - Heater negative with respect to cathode .................. 100 max. volts
  - Heater positive with respect to cathode .................. 100 max. volts
Direct Interelectrode Capacitances:
- Grid No.1 to plate .............................................. 0.03 max. μf
- Grid No.1 to cathode & internal shield, grid No.2, and heater .... 4.4 μf
- Plate to cathode & internal shield, grid No.2, and heater .......... 2.74 μf

Characteristics, Class A1 Amplifier:
- Plate Voltage ..................................................... 125 volts
- Grid-No.2 Voltage ................................................ 80 volts
- Grid-No.1 Voltage .............................................. -1 volt
- Plate Resistance (Approx.) .................................. 0.125 megohm
- Transconductance ............................................. 8000 μmhos
- Plate Current ................................................... 10 ma
- Grid-No.2 Current ............................................. 1.4 ma
- Grid-No.1 Voltage (Approx.) for transconductance (μmhos) = 100 ........ -5 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"
- Dimensional Outline .......................................... See General Section
- Bulb ............................................................... T5-1/2
- Base ............................................................. Small-Button Miniature 7-Pin (JEDEC No.E7-1)
- Basing Designation for BOTTOM VIEW ......................... 7EW

Pin 1 - Grid No.1
Pin 2 - Cathode, Internal Shield
Pin 3 - Heater
Pin 4 - Heater
Pin 5 - Plate
Pin 6 - Grid No.2
Pin 7 - Cathode, Internal Shield

RADIO CORPORATION OF AMERICA
Electron Tube Division
Harrison, N. J.

DATA 5-62
AMPLIFIER — Class A

Maximum Ratings, Design-Maximum Values:

PLATE VOLTAGE .................................. 180 max. volts
GRID-No.2 (SCREEN-GRID) SUPPLY VOLTAGE ... 180 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. volts
CATHODE CURRENT ................................ 20 max. ma
GRID-No.2 INPUT:
  For grid-No.2 voltages up
  to 90 volts .................................. 0.5 max. watt
  For grid-No.2 voltages be-
  tween 90 and 180 volts ........................ See Grid-No.2 Input Rating Chart
  at front of Receiving Tube Section
PLATE DISSIPATION .............................. 2 max. watts

Maximum Circuit Values:
Grid-No.1-Circuit Resistance .................... 0.5 max. megohm

SPECIAL RATINGS & PERFORMANCE DATA

Heater-Cycling:
Cycles of Intermittent Operation ............ 2000 min. cycles

This test is performed on a sample lot of tubes from each
production run under the following conditions: heater volts
= 7.5 cycled one minute on and one minute off, heater 135
volts positive with respect to cathode and all other elements
connected to ground. At the end of this test, tubes are
checked for heater-cathode shorts and open circuits.

Transconductance at Reduced Heater Voltage:
Average Value .................................. 5900 µmhos

With heater volts = 5.0, plate volts = 125, grid-No.2
volts = 80, grid-No.1 volts = -1.

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Footnotes:

a The dc component must not exceed 50 volts.
b With external shield JEDEC No.316 connected to cathode.