Semiremote-Cutoff Twin Pentode

DUODECAR TYPE

GENERAL DATA

Electrical:

Heater Characteristics and Ratings (Design-Maximum Values):

Voltage (AC or DC) .................. 6.3 ± 0.6 volts
Current at heater volts = 6.3 ...... 0.800 amp
Peak heater-cathode voltage
(Each unit):
  Heater negative with
  respect to cathode ............. 200 max. volts
  Heater positive with
  respect to cathode ............. 200 max. volts

Direct Interelectrode Capacitances:

Unit No. 1:
  Grid No.1 to plate ............. 0.026 pf
  Grid No.1 to cathode, grid No.2,
    grid No.3 & internal shield,      10 pf
    and heater
  Plate to cathode, grid No.2, grid
    No.3 & internal shield, and heater 2.8 pf

Unit No. 2:
  Grid No.1 to plate ............. 0.026 pf
  Grid No.1 to cathode, grid No.2,
    grid No.3, grid No.3 of unit No.1
    & internal shield, and heater   10 pf
  Plate to cathode, grid No.2,
    grid No.3, grid No.3 of unit No.1
    & internal shield, and heater   3.0 pf
  Plate of unit No.1 to plate
    of unit No.2 .................. 0.02 max. pf
  Grid No.1 of unit No.1 to plate of
    unit No.2 .................... 0.002 max. pf
  Grid No.1 of unit No.2 to plate
    of unit No.1 .................. 0.002 max. pf

Characteristics, Class A Amplifier (Each Unit):

  Plate Supply Voltage ............. 125 volts
  Grid No.3 ........................ Connected to cathode at socket
  Grid-No.2 Supply Voltage ........ 125 volts
  Cathode Resistor .................. 56 ohms
  Plate Resistance (Approx.) ........ 0.2 megohm
  Transconductance .................. 10500 µµhos
  Plate Current ..................... 11 ma
  Grid-No.2 Current ................. 3.5 ma
  Grid-No.1 Voltage (Approx.) for
    transconductance (µµhos) = 50 .......... -15 volts

Mechanical:

  Operating Position ................. Any
  Type of Cathodes .................. Coated Unipotential
  Maximum Overall Length ............ 1.875"
Seated Length ...................... 1.250" to 1.500"
Diameter. .......................... 1.062" to 1.188"
Bulb. ................................ T9
Base. ............................... Small-Button Duodecach 12-Pin (JEDEC No.E12-70)
Basing Designation for BOTTOM VIEW. ........... 12DM

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

Pin 8 – Plate of
Unit No.1
Pin 9 – Grid No.2
of Unit No.1
Pin 10 – Grid No.1
of Unit No.1
Pin 11 – Cathode
of Unit No.1
Pin 12 – Heater

AMPLIFIER — Class A

Values are for Each Unit

Maximum Ratings, Design-Maximum Values:

PLATE VOLTAGE ...................... 330 max. volts
GRID No.3 (SUPPRESSOR GRID) .... Connect to cathode at socket
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. volts
GRID-No.2 INPUT:
For grid-No.2 voltages up to 165 volts . 0.65 max. watt
For grid-No.2 voltages between
165 and 330 volts .............. See Grid-No.2 Input Rating Chart
at front of Receiving Tube Section
PLATE DISSIPATION ............... 3.1 max. watts

\[a\] The dc component must not exceed 100 volts.

[b] With external shield JEDEC No.309 connected to cathode of unit under test.

RADIO CORPORATION OF AMERICA
Electron Tube Division
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* APPLIES TO MINIMUM DIAMETER EXCEPT IN AREA OF SEAL.