Beam Power Tube

9-PIN MINIATURE TYPE
With Heater Having Controlled Warm-Up Time

GENERAL DATA

Electrical:

Heater, for Unipotential Cathode:
- Voltage (AC or DC) .................. 6.3 volts
- Current .................. 0.45 ± 6% amp
- Warm-up time (Average) .............. 11 sec

Direct Interelectrode Capacitances:
- Grid No.1 to plate .................. 0.4 max. µf
- Grid No.1 to cathode & grid No.3, grid No.2, and heater ............... 9 µf
- Plate to cathode & grid No.3, grid No.2, and heater ............... 6 µf

Characteristics, Class A1 Amplifier:
- Plate Voltage .................. 75 250 volts
- Grid-No.2 Voltage .................. 250 250 volts
- Grid-No.1 Voltage .................. 0 15 volts
- Plate Resistance (Approx.) .............. 73000 ohms
- Transconductance .................. 4800 µmhos
- Plate Current .................. 130 46 ma
- Grid-No.2 Current .................. 16 4.6 ma
- Grid-No.1 Voltage (Approx.) for plate µa = 100 .................. 40 volts

Mechanical:

Operating Position .................. Any
- Maximum Overall Length .............. 3-1/16"
- Maximum Seated Length .............. 2-13/16"
- Length, Base Seat to Bulb Top (Excluding tip) .............. 2-7/16" ± 3/32"
- Maximum Diameter .................. 0.750" to 0.875"
- Dimensional Outline .............. See General Section
- Bulb .................. T6-1/2

Base .................. Small-Button Noval 9-Pin (JEDEC No.E9-1)
Basing Designation for BOTTOM VIEW .................. 9HN

Pin 1 - Grid No.2
Pin 2 - No Connection
Pin 3 - Grid No.1
Pin 4 - Heater
Pin 5 - Heater
Pin 6 - Grid No.1
Pin 7 - Cathode, Grid No.3
Pin 8 - Internal Connection—Do Not Use
Pin 9 - Plate

← Indicates a change.
VERTICAL-DEFLECTION AMPLIFIER

Maximum Ratings, Design—Maximum Values:

For operation in a 525-line, 30-frame system:

- DC PLATE VOLTAGE: 350 max. volts
- PEAK POSITIVE-PULSE PLATE VOLTAGE: 2200 max. volts
- DC GRID-No.2 (SCREEN-GRID) VOLTAGE: 315 max. volts
- PEAK NEGATIVE-PULSE GRID-No.1 (CONTROL-GRID) VOLTAGE: 275 max. volts

CATHODE CURRENT:
- Peak: 155 max. ma
- Average: 45 max. ma
- GRID-No.2 INPUT: 2.2 max. watts
- PLATE DISSIPATION: 10 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): 250 max. °C

Maximum Circuit Values:

Grid-No.1-Circuit Resistance:
- For fixed-bias operation: 0.5 max. megohm
- For cathode-bias operation: 1 max. megohm

△ Without external shield.
● This value can be measured by a method involving a recurrent wave form such that the maximum ratings of the tube will not be exceeded.
★ As described in "Standards of Good Engineering Practice Concerning Television Broadcast Stations," Federal Communications Commission.
◇ This rating is applicable when the duration of the voltage pulse does not exceed 15 per cent of one vertical scanning cycle. In a 525-line, 30-frame system, 15 per cent of one vertical scanning cycle is 2.5 milliseconds.
● The dc component must not exceed 100 volts.

→ Indicates a change.
AVERAGE PLATE CHARACTERISTICS

$E_C = 6.3$ VOLTS
GRID-$N\&I$ VOLTS = 0

PLATE MILLIAMPERES

PLATE VOLTS

200 175 150 125 100 75 50 25 0

92CM-9155
AVERAGE CHARACTERISTICS

$E_f = 6.3$ VOLTS
GRID-N8 2 VOLTS = 250

PLATE (I_b) OR GRID-N8 2 (I_c2) MILLIAMPERES

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