Beam Power Tube

NOVAR TYPE
For TV Horizontal-Deflection-Amplifier Applications

GENERAL DATA

Electrical:
Heater Characteristics and Ratings:
Voltage (AC or DC) ................ 6.3 ± 0.6 volts
Current at heater volts = 6.3 .. 1.200 amp
Peak heater-cathode voltage:
Heater negative with 
respect to cathode .............. 200 max. volts
Heater positive with 
respect to cathode .............. 200a max. volts
Direct Interelectrode Capacitances 
(Approx.):
Grid No.1 to plate ............... 0.26 pf
Grid No.1 to cathode & grid No.3, 
grid No.2, and heater .......... 15.0 pf
Plate to cathode & grid No.3, 
grid No.2, and heater .......... 6.5 pf

Characteristics, Class A1 Amplifier:

<table>
<thead>
<tr>
<th>Plate Voltage</th>
<th>Grid-No.2 Voltage</th>
<th>Grid-No.1 Voltage</th>
<th>Amplification Factor</th>
<th>Plate Resistance (Approx.)</th>
<th>Transconductance</th>
<th>Plate Current</th>
<th>Grid-No.2 Current</th>
<th>Grid-No.1 Voltage (Approx.) for plate ma. = 0.1</th>
</tr>
</thead>
<tbody>
<tr>
<td>60 volts</td>
<td>150 volts</td>
<td>0 volts</td>
<td>150 150 150</td>
<td>15000 ohms</td>
<td>7100 μmhos</td>
<td>390d</td>
<td>70 ma</td>
<td>-42 volts</td>
</tr>
<tr>
<td>250 volts</td>
<td>150 volts</td>
<td>-22.5 volts</td>
<td>4.4</td>
<td></td>
<td></td>
<td>32d</td>
<td>2.1 ma</td>
<td></td>
</tr>
<tr>
<td>150 volts</td>
<td></td>
<td>-22.5 volts</td>
<td></td>
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</table>

Mechanical:
Operating Position .................. Any
Type of Cathode .................. Coated Unipotential
Maximum Overall Length ........... 3.410"
Maximum Seated Length ............ 3.030"
Length, Base Seat to Bulb Top (Excluding tip) 2.510" to 2.690"
Diameter .......................... 1.438" to 1.562"
Bulb .......................... T12
Socket .......................... Cinch Mfg. Co. No.1491900033, Industrial Electronic Hardware Co. No.50-0968-SL1, or equivalent
Base .......................... Large-Button Novar 9-Pin (JEDEC No.E9-76)

--- Indicates a change.

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

DATA 1
6-63
HORIZONTAL-DEFLECTION AMPLIFIER

Maximum Ratings, Design-Maximum Values:

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

- DC PLATE-SUPPLY VOLTAGE: 770 max. volts
- PEAK POSITIVE-PULSE PLATE VOLTAGE: 6500 max. volts
- PEAK NEGATIVE-PULSE PLATE VOLTAGE: 1500 max. volts
- DC GRID-No.2 (SCREEN-GRID) VOLTAGE: 220 max. volts
- DC GRID-No.1 (CONTROL-GRID) VOLTAGE: -55 max. volts
- PEAK NEGATIVE-PULSE GRID-No.1 VOLTAGE: 330 max. volts

CATHODE CURRENT:
- Peak: 550 max. ma
- Average: 175 max. ma

GRID-No.2 INPUT: 3.5 max. watts

PLATE DISSIPATION: 17.5 max. watts

BULB TEMPERATURE (At hottest point on bulb surface): 240 max. °C

Maximum Circuit Values:

Grid-No.1 Circuit Resistance: 1 max. megohm

a The dc component must not exceed 100 volts.
b Without external shield.
c With grid No. 2 connected to plate.
d 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.
e As described in "Standards of Good Engineering Practice Concerning Television Broadcast Stations", Federal Communications Commission.
f This rating is applicable where the duration of the voltage pulse does not exceed 15 per cent of one horizontal scanning cycle. In a 525-line, 30-frame system, 15 per cent of one horizontal scanning cycle is 10 microseconds.
g An adequate bias resistor or other means is required to protect the tube in the absence of excitation.
ALL DIMENSIONS IN INCHES

** APPLIES IN ZONE STARTING 0.375" FROM BASE SEAT.

* MEASURED FROM BASE SEAT TO BULB–TOP LINE AS DETERMINED BY A RING GAUGE OF 0.600" INSIDE DIAMETER.