GENERAL DATA

Electrical:

Heater, for Unipotential Cathode:
Voltage: 6.3 ac or dc volts
Current: 1.25 amp

Direct Inter-electrode Capacitances (Approx.):
- Grid No.1 to plate: 0.5 μf
- Grid No.1 to cathode & grid No.3, grid No.2, and heater: 11.3 μf
- Plate to cathode & grid No.3, grid No.2, and heater: 7 μf
- Transconductance: 5600 μmhos
- Mu-Factor, Grid No.2 to Grid No.1: 5.9

Mechanical:

Mounting Position: Any
Maximum Overall Length: 3-5/16" 2-3/4"
Maximum Seated Length: 1-9/32" 12-9/32"
Bulb: T-9
Base: Intermediate-Shell Octal 6-Pin (JETEC No.B6-8)
Basing Designation for BOTTOM VIEW: 6CK

Pin 1-Grid No.1
Pin 2-Heater
Pin 3-Cathode, Grid No.3
Pin 5-Plate
Pin 7-Heater
Pin 8-Grid No.2

HORIZONTAL DEFLECTION AMPLIFIER

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

Maximum Ratings, Design-Center Values:
DC PLATE VOLTAGE: 550 max. volts
PEAK POSITIVE-PULSE PLATE VOLTAGE*: 5500 max. volts
PEAK NEGATIVE-PULSE PLATE VOLTAGE*: -1250 max. volts
DC GRID-No.2 (SCREEN) VOLTAGE†: 200 max. volts

*With no external shield.
†For plate volts = 115, grid-No.1 volts = 175, grid-No.2 volts = -20.
‡For plate volts = 100, grid-No.1 volts = 100, grid-No.1 volts = -4.5.
As described in "Standards of Good Engineering Practice Concerning Television Broadcast Stations", Federal Communications Commission.

The duration of the voltage pulse must 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.

Under no circumstances should this absolute value be exceeded.
†Preferably obtained through a series dropping resistor of sufficient magnitude to limit the grid-No.2 input to the rated maximum value.

*† Indicates a change.

NOV. 5, 1954
### Beam Power Tube

**PEAK NEGATIVE-PULSE GRID—No. 1 (CONTROL-GRID) VOLTAGE**  
-300 max. volts

**CATHODE CURRENT:**
- Peak: 400 max. ma
- Average: 110 max. ma

**GRID—No. 2 INPUT**  
2.5 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)**  
210 max. °C

### Maximum Circuit Values:
- Grid-No.1-Circuit Resistance: 0.47 max. megohm

### Voltage Regulator Service

**Triode Connection—Grid No. 2 Connected to Plate**

**Maximum Ratings, Design-Center Values:**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLATE VOLTAGE</td>
<td>300 max. volts</td>
</tr>
<tr>
<td>GRID—No. 1 (CONTROL-GRID) VOLTAGE:</td>
<td></td>
</tr>
<tr>
<td>Negative bias value</td>
<td>125 max. volts</td>
</tr>
<tr>
<td>Positive bias value</td>
<td>0 max. volts</td>
</tr>
<tr>
<td>CATHODE CURRENT</td>
<td>110 max. ma</td>
</tr>
<tr>
<td>PLATE &amp; GRID—No. 2 DISSIPATION (Total)</td>
<td>10 max. watts</td>
</tr>
<tr>
<td>PEAK HEATER—CATHODE VOLTAGE:</td>
<td></td>
</tr>
<tr>
<td>Heater negative with respect to cathode</td>
<td>200 max. volts</td>
</tr>
<tr>
<td>Heater positive with respect to cathode</td>
<td>200 max. volts</td>
</tr>
</tbody>
</table>

*An adequate cathode-bias resistor or other suitable means is required to protect the tube in the absence of excitation.*

*The dc component must not exceed 100 volts.*

*For tube in vertical position with base down in free space and with natural ventilation, the hottest point on the bulb is in the center of the dome just above open end of cathode sleeve.*

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**Indicates a change.**

**NOV. 5, 1954**

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RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY
AVERAGE PLATE CHARACTERISTICS

$E_f = 6.3$ VOLTS
GRID-N81 VOLTS = 0

PLATE MILLIAMPERES
PLATE VOLTS

SEPT. 8, 1949
TUBE DEPARTMENT
RADIO CORPORATION OF AMERICA, MARRISON, NEW JERSEY
AVERAGE PLATE CHARACTERISTICS

$E_p = 6.3$ VOLTS
GRID-$\text{N}^\circ2$ VOLTS = 150

PLATE (I_b) OR GRID-$\text{N}^\circ2$(IC2) MILLIAMPERES

AUG. 29, 1949