6BK7-B
MEDIUM-MU TWIN TRIODE
9-PIN MINIATURE TYPE

Intended for use in equipment having series heater-string arrangement

The 6BK7-B is the same as the 6BK7-A except for the following items:

Heater, for Unipotential Cathodes:
- Voltage: 6.3 volts ac or dc
- Current: 0.45 amp
- Warm-up time (Average): 11 seconds

For definition of heater warm-up time and method of determining it, see sheet HEATER WARM-UP TIME MEASUREMENT at front of this Section.
# 6BK7-B MEDIUM-MU TWIN TRIODE

9-PIN MINIATURE TYPE

With heater having controlled warm-up time. For TV tuners using direct-coupled cathode-drive circuits.

## GENERAL DATA

**Electrical:**

Heater, for Unipotential Cathodes:

- Voltage: 6.3 ac or dc volts
- Current: 0.45 amp
- Warm-up time (Average): 11 sec

*For definition of heater warm-up time and method of determining it, see sheet HEATER WARM-UP TIME MEASUREMENT at front of this Section.*

Direct Interelectrode Capacitances:

<table>
<thead>
<tr>
<th></th>
<th>Unit No. 1</th>
<th>Unit No. 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grid to plate</td>
<td>1.8 μf</td>
<td>1.8 μf</td>
</tr>
<tr>
<td>Grid to cathode, internal shield, and heater</td>
<td>3 μf</td>
<td>3 μf</td>
</tr>
<tr>
<td>Plate to cathode, internal shield, and heater</td>
<td>1 μf</td>
<td>0.9 μf</td>
</tr>
<tr>
<td>Heater to cathode</td>
<td>2.8 μf</td>
<td>3 μf</td>
</tr>
<tr>
<td>Plate to cathode</td>
<td>0.22 μf</td>
<td>0.22 μf</td>
</tr>
<tr>
<td>Cathode to grid, internal shield, and heater</td>
<td>6 μf</td>
<td>6 μf</td>
</tr>
<tr>
<td>Plate to grid, internal shield, and heater</td>
<td>2.4 μf</td>
<td>2.4 μf</td>
</tr>
<tr>
<td>Grid of unit No.1 to grid of unit No.2</td>
<td>0.004 max.</td>
<td>μf</td>
</tr>
<tr>
<td>Plate of unit No.1 to plate of unit No.2</td>
<td>0.075 max.</td>
<td>μf</td>
</tr>
</tbody>
</table>

**Characteristics, Class A Amplifier (Each Unit):**

- Plate-Supply Voltage: 150 volts
- Cathode Resistor: 56 ohms
- Amplification Factor: 43
- Plate Resistance (Approx.): 4600 ohms
- Transconductance: 9300 μmhos
- Plate Current: 18 ma
- Grid Volts (Approx.) for plate μa = 10: -11 volts

## Mechanical:

- Operating Position: Any
- Maximum Overall Length: 2-3/16"
- Maximum Seated Length: 1-15/16"
- Length, Base Seat to Bulb Top (Excluding tip): 1-9/16" ± 3/32"
- Diameter: 0.750" to 0.875"
- Dimensional Outline: See General Section
- Bulb: T6-1/2

*without external shield,*

---

ELECTRON TUBE DIVISION
RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY
**6BK7-B**

**MEDIUM-MU TWIN TRIODE**

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

Pin 1 - Plate of  
Unit No. 2
Pin 2 - Grid of  
Unit No. 2
Pin 3 - Cathode of  
Unit No. 2
Pin 4 - Heater
Pin 5 - Heater

Pin 6 - Plate of  
Unit No. 1
Pin 7 - Grid of  
Unit No. 1
Pin 8 - Cathode of  
Unit No. 1
Pin 9 - Internal Shield

**AMPLIFIER — Class A**

*Values are for Each Unit*

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

- **PLATE VOLTAGE** ................. 300 max. volts
- **GRID VOLTAGE:**
  - Negative-bias value .............. 50 max. volts
- **PLATE DISSIPATION** ............. 2.7 max. watts
- **PEAK HEATER-CATHODE VOLTAGE:**
  - Heater negative with respect to cathode. 200 max. volts
  - Heater positive with respect to cathode. 200 max. volts

*under cutoff conditions indirect-coupled cathode-drive circuits, it is permissible for this voltage to be as high as 300 volts.
* The dc component must not exceed 100 volts.