6AV6
TWIN DIODE—HIGH-MU TRIODE
7-PIN MINIATURE TYPE

GENERAL DATA

Electrical:
Heater, for Unipotential Cathode:
Voltage (AC or DC) ............... 6.3 ± 10% volts
Current ......................... 0.3 amp
Direct Interelectrode Capacitances:

<table>
<thead>
<tr>
<th></th>
<th>Without External Shield</th>
<th>With External Shield</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grid to plate</td>
<td>2 μf</td>
<td>2 μf</td>
</tr>
<tr>
<td>Grid to cathode and heater</td>
<td>2.2 μf</td>
<td>2.2 μf</td>
</tr>
<tr>
<td>Plate to cathode and heater</td>
<td>0.8 μf</td>
<td>1.2 μf</td>
</tr>
<tr>
<td>Diode-No.2 plate to triode grid</td>
<td>0.04 max. μf</td>
<td>0.04 max. μf</td>
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</table>

Characteristics, Class A1 Amplifier (Triode Unit):
Plate Voltage ...................... 100 250 volts
Grid Voltage ...................... -1 -2 volts
Amplification Factor .............. 100 100
Plate Resistance (Approx.) ........ 0.08 0.0625 meghom
Transconductance .................. 1250 1600 μmhos
Plate Current ...................... 0.5 1.2 ma

Mechanical:
Operating Position .................................................................. Any
Maximum Overall Length .............................................................. 2-1/8"
Maximum Seated Length .............................................................. 1-7/8"
Length, Base Seat to Bulb Top (Excluding tip) ......................... 1-1/2" ± 3/32"
Diameter ........................................................................ 0.650" to 0.750"
Dimensional Outline ................................................................ See General Section
Bulb ...................................................................................... T5-1/2
Base .............................................................................. Small-Button Miniature 7-Pin (JEDEC No. E7-1)
Basing Designation for BOTTOM VIEW ........................................ 7BT

Pin 1 - Triode Grid
Pin 2 - Cathode
Pin 3 - Heater
Pin 4 - Heater

Pin 5 - Diode Plate No. 2
Pin 6 - Diode Plate No. 1
Pin 7 - Triode Plate

TRIODE UNIT — AMPLIFIER — Class A1

Maximum Ratings, Design-Maximum Values:
Plate Voltage ...................... 330 max. volts
Grid Voltage:
Positive-bias value .................. 0 max. volts
Plate Dissipation .................. 0.55 max. watt

Indicates a change.

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ELECTRON TUBE DIVISION
RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY
PEAK HEATER-CATHODE VOLTAGE:
  Heater negative with respect to cathode. . 200 max. volts
  Heater positive with respect to cathode. . 200* max. volts

Typical Operation as Resistance-Coupled Amplifier:
  See RESISTANCE-COUPLED AMPLIFIER CHART No.25
  at front of this Section

DIODE UNITS — Two

Maximum Ratings, Design-Maximum Values:
  PLATE CURRENT (For each diode) . . . . . . . . 1 max. ma

Characteristics:
  Values are for Each Unit
  Plate Current for plate volts = 10 . . . . . . . 2 ma

Diode Considerations:
Consideration of these units, including typical circuits and
diode curves, is given at the front of this Section. Diode
biasing of the triode unit of the 6AV6 is not suitable.

0 With external shield JEDEC No.316 connected to cathode.
A The dc component must not exceed 100 volts.

Curves for the triode unit of the 6AV6 are the
same as those shown for Type 12AX7