Semiremote-Cutoff Pentode

7-PIN MINIATURE TYPE
For Use in Gain-Controlled Picture-IF Amplifier Stages of Color TV Receivers

GENERAL DATA

Electrical:

Heater Characteristics and Ratings:
Voltage (AC or DC).......................... 6.3 ± 0.6 volts
Current at heater volts = 6.3 ........ 0.300 amp
Peak heater-cathode voltage:
Heater negative with respect to cathode........ 200 volts
Heater positive with respect to cathode......... 200 volts

Direct Interelectrode Capacitances:

<table>
<thead>
<tr>
<th></th>
<th>Without External Shield</th>
<th>With External Shield</th>
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</thead>
<tbody>
<tr>
<td>Grid No.1 to plate</td>
<td>0.025 max.</td>
<td>0.015 max. pf</td>
</tr>
<tr>
<td>Grid No.1 to cathode, grid No.3 &amp; internal shield, grid No.2, and heater</td>
<td>7 pf</td>
<td></td>
</tr>
<tr>
<td>Plate to cathode, grid No.3 &amp; internal shield, grid No.2, and heater</td>
<td>2 pf</td>
<td></td>
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Characteristics, Class A1 Amplifier:
Plate Supply Voltage.......................... 125 volts
Grid No.3 .................................. Connected to cathode at socket
Grid-No.2 Supply Voltage.......................... 125 volts
Cathode Resistor.................................. 56 ohms
Plate Resistance (Approx.) ........... 0.26 meghm
Transconductance.................... 8000 µmhos
Plate Current .................................. 14 ma
Grid-No.2 Current ......................... 3.6 ma
Grid-No.1 Voltage (Approx.)
for transconductance (µmhos) = 50
and cathode resistor (ohms) = 0 .... −19 volts
Transconductance Range for grid-
No.1 volts = −4.5 and cathode
resistor of 56 ohms .................. 400−900 µmhos

Mechanical:
Mounting Position .................................. Any
Type of Cathode .................................. Coated Unipotential
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"
6JH6

Dimensional Outline ................. See General Section
Bulb ................................... T5-1/2
Base .......................... Small-Button Miniature 7-Pin (JEDEC No.E7-1)
   Basing Designation for BOTTOM VIEW .......... 7CM

Pin 1 - Grid No. 1
Pin 2 - Cathode
Pin 3 - Heater
Pin 4 - Heater

Pin 5 - Plate
Pin 6 - Grid No. 2
Pin 7 - Grid No. 3, Internal Shield

AMPLIFIER — Class A1

Maximum Ratings, Design-Maximum Values:
PLATE VOLTAGE .......................... 300 max. volts
GRID-No. 3 (SUPPRESSOR-GRID) VOLTAGE ........ 0 max. volts
GRID-No. 2 (SCREEN-GRID) SUPPLY VOLTAGE ... 300 max. volts
GRID-No. 2 VOLTAGE .................. See Grid-No. 2 Input Rating Chart
   at front of Receiving Tube Section
GRID-No. 1 (CONTROL-GRID) VOLTAGE:
   Positive-bias value .................. 0 max. volts
GRID-No. 2 INPUT:
   For grid-No. 2 voltages up to 150 volts ........... 0.55 max. watt
   For grid-No. 2 voltages between 150 and 300 volts .See Grid-No. 2 Input Rating Chart
   at front of Receiving Tube Section
PLATE DISSIPATION .................. 2.3 max. watts

Maximum Circuit Values:
Grid-No. 1-Circuit Resistance:
   For fixed-bias operation ................ 0.25 max. megohm
   For cathode-bias operation ............. 1 max. megohm

a The dc component must not exceed 100 volts.
b With external shield JEDEC No.316 connected to cathode.
AVERAGE CHARACTERISTICS

$E_p = 6.3$ VOLTS
PLATE VOLTS = 125
GRID-#3 VOLTS = 0

GRID-#1 VOLTS

GRID-#2 VOLTS

GRID-#2 MILLIAMPERES

92CM-9485RI
AVERAGE CHARACTERISTICS

E_c = 6.3 VOLTS
PLATE VOLTS = 125
GRID-N#3 VOLTS = 0

TRANSCONDUCTANCE (g_m) - MICROMOS

GRID-N#1 VOLTS

-24 -20 -16 -12 -8 -4 0

10000 1000 100 10 1

50 15 10 5 2 1 0.5

GRID-N#2 VOLTS EC2 = 150 125 100 75 50

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