High-Mu Triple Triode
Duodecar Type
For Matrix-Amplifier Applications
in Color-TV Receivers

ELECTRICAL CHARACTERISTICS - Bogey Values

Heater Voltage (ac or dc) ........ \( E_h \) .......... 6.3 V
Heater Current ............... \( I_h \) ........... 0.9 A

Direct Interelectrode Capacitances: \(^a\) \( C_{gp} \) ........ 2.6 pF
Input: G to (K, H) ............ \( C_{in} \) ........ 4.6 pF
Output: P to (K, H) ........... \( C_{out} \) .......... 0.33 pF

For the following characteristics, see Conditions below:
Values are for each unit.

Amplification Factor ........... \( \mu \) .......... 47 40
Plate Resistance (Approx.) .... \( r_p \) .......... 6250 10,000 \( \Omega \)
Transconductance .............. \( G_m \) .......... 7500 4000 \( \mu \text{mho} \)
Plate Current ................. \( I_b \) ........... 11 4.8 mA

Grid Voltage (Approx.) for \( I_b = 50 \mu \text{A} \) ...........

Conditions:
Heater Voltage .......... \( E_h \) .......... 6.3 6.3 V
Plate Voltage ........ \( E_b \) .......... 125 200 V
Grid Voltage ........ \( E_c \) .......... -1 -4 V

MECHANICAL CHARACTERISTICS

Maximum Overall Length .... 2.875 in (73.02 mm)
Maximum Seated Length ...... 2.50 in (63.5 mm)
Maximum Diameter .......... 1.188 in (30.1 mm)
Dimensional Outline ........ JEDEC E9-60
See Outlines, Glass Tubes in General Section

Envelope ....................... T9
Base ................ Small-Button Duodecar 12-Pin with Exhaust Tip
(JEDEC No.E12-70)
Terminal Diagram .......... JEDEC 12HU
Type of Cathode .......... Coated Unipotential
Operating Position ......... Any
MAXIMUM RATINGS – Design-Maximum Values

Values are for Each Unit

Plate Voltage ................ E_{bb} 330 V
Grid Voltage:
  Positive-bias value ........ E_{cc} 0 V
  Plate Dissipation ........... P_{b} 3 W
Heater-cathode voltage (Each unit):
  Peak ...................... e_{hk}m ±200 V
  Average ................... E_{hk}^{(av)} 100 V
Heater Voltage, ac or dc ....... E_{h} 5.7 to 6.9 V

MAXIMUM CIRCUIT VALUE

Grid-Circuit Resistance:
  For fixed-bias operation .... R_{g} 1 MΩ

a Measured without external shield in accordance with the current issue of EIA Standard RS-191.
b As defined in the current issue of EIA Standard RS-239.
c Measured with a dc meter.

TERMINAL DIAGRAM – Bottom View

Pin 1 - Heater
Pin 2 - Plate of Unit No.3
Pin 3 - Cathode
Pin 4 - Plate of Unit No.2
Pin 5 - No Internal Connection
Pin 6 - Plate of Unit No.1
Pin 7 - Do Not Use
Pin 8 - Grid of Unit No.1
Pin 9 - Do Not Use
Pin 10 - Grid of Unit No.2
Pin 11 - Grid of Unit No.3
Pin 12 - Heater