Sharp-Cutoff Twin Pentode
With Common Cathode, Grid No.1, and Grid No.2

9-PIN MINIATURE TYPE

GENERAL DATA

Electrical:

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

Direct Inter-electrode Capacitances:
Grid No.3 to plate (Each unit) .... 1.9 μf
Grid No.1 to all other electrodes 6 μf
Grid No.3 to all other electrodes (Each unit) ........ 3.6 μf
Plate to all other electrodes (Each unit) ........... 3 μf
Grid No.3 (Unit No.1) to grid No.3 (Unit No.2) .... 0.015 max. μf

Characteristics, Class A1 Amplifier:

With both units operating
Plate Voltage (Each Unit) .......... 100 100 volts
Grid-No.3 Voltage (Each Unit) .... -10 0 volts
Grid-No.2 Voltage .................. 67.5 67.5 volts
Grid-No.1 Voltage .................. b b volts
Plate Current (Each Unit) .......... - 2.2 ma
Grid-No.2 Current .................. 6.5 3.3 ma
Cathode Current .................... 6.6 7.8 ma

With one unit operating
Plate Voltage ..................... 100 100 volts
Grid-No.3 Voltage .................. 0 0 volts
Grid-No.2 Voltage .................. 67.5 67.5 volts
Grid-No.1 Voltage ................. 0 b volts
Grid-No.3-to-Plate Transconductance .... 180 μmhos
Grid-No.1-to-Plate Transconductance .... 1500 μmhos
Plate Current ..................... - 2.2 ma
Grid-No.3 Voltage (Approx.) for plate μa = 100. .... -4.5 volts
Grid-No.1 Voltage (Approx.) for plate μa = 100. .... -2.3 volts

Mechanical:

Operating Position .................. Any
Maximum Overall Length ............ 2-5/8"
Maximum Seated Length............. 2-3/8"
Length, Base Seat to Bulb Top (Excluding tip) ... 2" ± 3/32"
Diameter ................................ 0.750" to 0.875"
Dimensional Outline ................ See General Section
Bulb .................................. T6-1/2
AMPLIFIER — Class A₁

Maximum Ratings, Design-Maximum Values:

PLATE VOLTAGE (Each unit).............. 300 max. volts
GRID-No.3 (SUPPRESSOR-GRID) VOLTAGE
(Each unit):
Peak-positive value.................. 50 max. volts
Negative-bias value.................. 0 max. volts
Positive-bias value.................. 3 max. volts
GRID-No.2 (SCREEN-GRID) VOLTAGE........ 150 max. volts
GRID-No.1 (CONTROL-GRID) VOLTAGE:
Negative-bias value.................. 50 max. volts
CATHODE CURRENT.................. 12 max. ma
GRID-No.2 INPUT.................. 0.75 max. watt
PLATE DISSIPATION (Each unit)........ 1.1 max. watts
PEAK HEATER-CATHODE VOLTAGE:
Heater negative with respect to cathode.................. 200 max. volts
Heater positive with respect to cathode.................. 200 max. volts

Maximum Circuit Values:

Grid-No.3-Circuit Resistance (Each unit)........ 0.5 max. megohm
Grid-No.1-Circuit Resistance........ 0.5 max. megohm

a Without external shield.
b Adjusted to give a dc grid-No.1 current of 100 microamperes.
c With plate and grid No.3 of the other unit connected to ground.
d The dc component must not exceed 100 volts.
6BU8

AVERAGE PLATE CHARACTERISTICS

each unit

\[ E_c = 6.3 \text{ VOLTS} \]
\[ \text{GRID-N}^\#3 \text{ VOLTS} = 0 \]
\[ \text{GRID-N}^\#2 \text{ VOLTS} = 67.5 \]

Plate and Grid N\#3 of other unit grounded.

\[
\begin{align*}
\text{GRID-N}^\#3 \text{ VOLTS} &= 0.5 \\
\text{GRID-N}^\#2 \text{ MILIAMPERES} &= 0.01 \\
\text{PLATE MILLIAMPERES} &= 0.0 \\
\text{PLATE VOLTS} &= 10
\end{align*}
\]

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92CM-9428
AVERAGE PLATE CHARACTERISTICS
EACH UNIT

$E_f = 6.3$ VOLTS
GRID = N$^\circ$2 VOLTS = 67.5
GRID = N$^\circ$1 MILLIAMPERES = 0.1
PLATE AND GRID N$^\circ$3 OF
OTHER UNIT GROUNDED.

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**6BU8**

**AVERAGE CHARACTERISTICS EACH UNIT**

$E_f = 6.3$ VOLTS  
PLATE VOLTS = 150  
GRID-N3 VOLTS = 0  
PLATE AND GRID N3 OF OTHER UNIT GROUNDED.
AVERAGE CHARACTERISTICS
E F = 6.3 VOLTS
PLATE VOLTS = 150
GRID - N°1 MILLIAMPERES = 0.1
PLATE AND GRID N°3 OF
OTHER UNIT GROUNDED.