The 6EU7 is a miniature, high-mu, twin triode primarily designed for use in low-level stages of high-gain audio-frequency amplifiers. Isolation of the heater pins in the new basing employed and inherent low hum properties make use of the 6EU7 in this application advantageous.

**GENERAL**

**ELECTRICAL**

Cathode—Coated Unipotential

Heater Characteristics and Ratings

Heater Voltage, AC or DC* .......... 6.3 ± 0.6 Volts

Heater Current† .......... 0.3 Amperes

Direct Interelectrode Capacitances‡

Grid to Plate, Each Section: (g to p) .......... 1.5 pf

Input, Each Section: g to (h+k) .......... 1.6 pf

Output, Each Section: p to (h+k) .......... 0.2 pf

**MECHANICAL**

Mounting Position—Any

Envelope—T-6 ½, Glass

Base—E9-1, Small Button 9-Pin

Outline Drawing—EIA 6-2

Maximum Diameter .......... 3/16 Inch

Maximum Over-all Length .......... 2 1/4 Inches

Maximum Seated Height .......... 1 1/8 Inches

**MAXIMUM RATINGS**

**DESIGN-MAXIMUM VALUES, EACH SECTION**

Plate Voltage .......... 330 Volts

Positive DC Grid Voltage .......... 0 Volts

Negative DC Grid Voltage .......... 55 Volts

Plate Dissipation .......... 1.2 Watts

**Heater-Cathode Voltage**

Heater Positive with Respect to Cathode

DC Component .......... 100 Volts

Total DC and Peak .......... 200 Volts

Heater Negative with Respect to Cathode

Total DC and Peak .......... 200 Volts

Design-Maximum ratings are limiting values of operating and environmental conditions applicable to a bogey electron tube of a specified type as defined by its published data and should not be exceeded under the worst probable conditions.

The tube manufacturer chooses these values to provide acceptable serviceability of the tube, making allowance for the effects of changes in operating conditions due to variations in the characteristics of the tube under consideration.

The equipment manufacturer should design so that initially and throughout life no design-maximum value for the intended service is exceeded with a bogey tube under the worst probable operating conditions with respect to supply-voltage variation, equipment component variation, equipment control adjustment, load variation, signal variation, environmental conditions, and variations in the characteristics of all other electron devices in the equipment.

**PHYSICAL DIMENSIONS**

**TERMINAL CONNECTIONS**

Pin 1—Heater

Pin 2—Heater

Pin 3—No Connection

Pin 4—Cathode (Section 2)

Pin 5—Grid (Section 2)

Pin 6—Plate (Section 2)

Pin 7—Plate (Section 1)

Pin 8—Grid (Section 1)

Pin 9—Cathode (Section 1)

**BASING DIAGRAM**

EIA 6-2

EIA 9LS
CHARACTERISTICS AND TYPICAL OPERATION

Class A, Amplifier, Each Section
Plate Voltage ................................................. 100 250 Volts
Grid Voltage .................................................. 1.0  2.0 Volts
Amplification Factor ........................................... 100  100
Plate Resistance, approximate ................................. 8000 Ohms
Transconductance ............................................ 1250 62500 Ohms
Plate Current ................................................... 0.5 1600 Micromhos
Equivalent Noise and Hum Voltage, Each Section, Average, True RMS\§ 1.8 1.2 Milliamperes

* The equipment designer should design the equipment so that heater voltage is centered at the specified bogey value, with heater supply variations restricted to maintain heater voltage within the specified tolerance.
† Heater current of a bogey tube at Ef = 6.3 volts.
‡ Without external shield.
§ Referred to grid and measured under the following conditions: Ef = 6.3 volts AC, CT of heater transformer grounded; Ebb = 250 volts; Rb = 100000 ohms; Rk = 2700 ohms, bypassed by 100 \( \mu F \); Rg = 0 ohms; Amplifier frequency range = 25 to 1000 cps.

The tubes and arrangements disclosed herein may be covered by patents of General Electric Company or others. Neither the disclosure of any information herein nor the sale of tubes by General Electric Company conveys any license under patent claims covering combinations of tubes with other devices or elements. In the absence of an express written agreement to the contrary, General Electric Company assumes no liability for patent infringement arising out of any use of the tubes with other devices or elements by any purchaser of tubes or others.

AVERAGE PLATE CHARACTERISTICS

EACH SECTION

\( E_f = \text{RATED VALUE} \)

K-55611-TD50-1
OCTOBER 2, 1958
AVERAGE PLATE CHARACTERISTICS

EACH SECTION

\[ E_f = \text{RATED VALUE} \]

PLATE CURRENT IN MILLIAMPERES

0.7
0.6
0.5
0.4
0.3
0.2
0.1

0
50
100
150
200
PLATE VOLTAGE IN VOLTS

OCTOBER 2, 1958

AVERAGE TRANSFER CHARACTERISTICS

EACH SECTION

\[ E_f = \text{RATED VALUE} \]

PLATE CURRENT IN MILLIAMPERES

3.5
3.0
2.5
2.0
1.5
1.0
0.5

-5
-4
-3
-2
-1
0
GRID VOLTAGE IN VOLTS

OCTOBER 2, 1958