# 19J6

# MEDIUM-MU TWIN TRIODE

**Miniature Type**

TENTATIVE DATA

RCA-19J6 is a miniature type of medium-mu twin triode intended especially for converter service in ac/dc FM and AM receivers. In such service, one triode unit may be used as a mixer, and the other as an oscillator. The 19J6 may also be used for oscillator, amplifier, or mixer service in television receivers of the "transformerless" type.

## GENERAL DATA

**Electrical:**

| | | |
|---|---|---|
| Heater, for Unipotential Cathode: | | |
| Voltage (AC or DC) | 18.9 | volts |
| Current | 0.15 | ampere |
| Direct Interelectrode Capacitances (Each unit approx.)o: | | |
| Grid to Plate | 1.5 | μμf |
| Grid to Cathode | 2.0 | μμf |
| Plate to Cathode | 0.4 | μμf |

**Mechanical:**

| | |
|---|---|
| Mounting Position | Any |
| Maximum Overall Length | 2-1/8" |
| Maximum Seated Height | 1-7/8" |
| Length from Base Seat to Bulb Top (excluding tip) | 1-1/2" ± 3/32" |
| Maximum Diameter | 3/4" |
| Bulb | T-5-1/2 |
| Base | Small-Button Miniature 7-Pin |

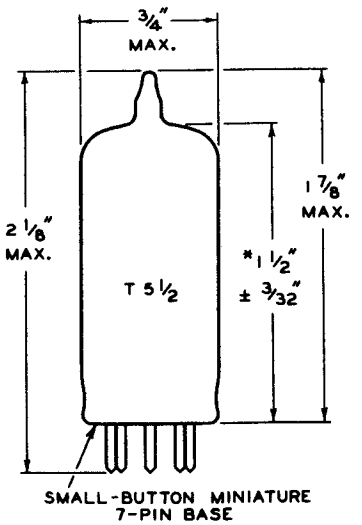
## CLASS $A_1$ AMPLIFIER

*Values are for each unit*

**Maximum Ratings,** *Design-Center Values:*

| | | |
|---|---|---|
| PLATE VOLTAGE | 300 max. | volts |
| PLATE DISSIPATION | 1.5 max. | watts |
| PEAK HEATER-CATHODE VOLTAGE: | | |
| Heater negative with respect to cathode | 90 max. | volts |
| Heater positive with respect to cathode | 90 max. | volts |

## DIMENSIONAL OUTLINE




* MEASURED FROM BASE SEAT TO BULB-TOP LINE AS DETERMINED BY RING GAUGE OF 7/16" I.D.

## CLASS $A_1$ AMPLIFIER (Cont'd)

**Characteristics:**

| | | |
|---|---|---|
| Plate Voltage | 100 | volts |
| Cathode-Bias Resistor** | 50♦ | ohms |
| Amplification Factor | 38 | |
| Plate Resistance | 7100 | ohms |
| Transconductance | 5300 | micromhos |
| Plate Current | 8.5 | ma |

## MIXER SERVICE

*Values are for each unit*

**Maximum Ratings,** *Design-Center Values:*

| | | |
|---|---|---|
| PLATE VOLTAGE | 300 max. | volts |
| PLATE DISSIPATION | 1.5 max. | watts |
| PEAK HEATER-CATHODE VOLTAGE: | | |
| Heater negative with respect to cathode | 90 max. | volts |
| Heater positive with respect to cathode | 90 max. | volts |

**Typical Operation:**

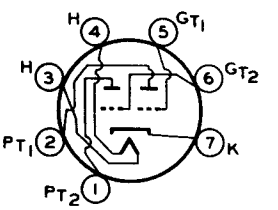
| | | |
|---|---|---|
| Plate Voltage | 150 | volts |
| Cathode-Bias Resistor** | 810 | ohms |
| Oscillator Peak Voltage | 3 | volts |
| Plate Resistance | 10200 | ohms |
| Conversion Transconductance | 1900 | micromhos |
| Short-Circuit Input Conductance at 100 Mc. | 96 | micromhos |
| Plate Current | 4.8 | ma |

o With no external shield.

** Under maximum rated conditions, the resistance in the grid circuit should not exceed 0.5 megohm with cathode bias. Operation with fixed bias is not recommended.

♦ Value is for both units operating at the specified conditions.

## SOCKET CONNECTIONS
**Bottom View**

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PIN 1 - PLATE OF TRIODE No. 2
PIN 2 - PLATE OF TRIODE No. 1
PIN 3 - HEATER
PIN 4 - HEATER
PIN 5 - GRID OF TRIODE No. 1
PIN 6 - GRID OF TRIODE No. 2
PIN 7 - CATHODE

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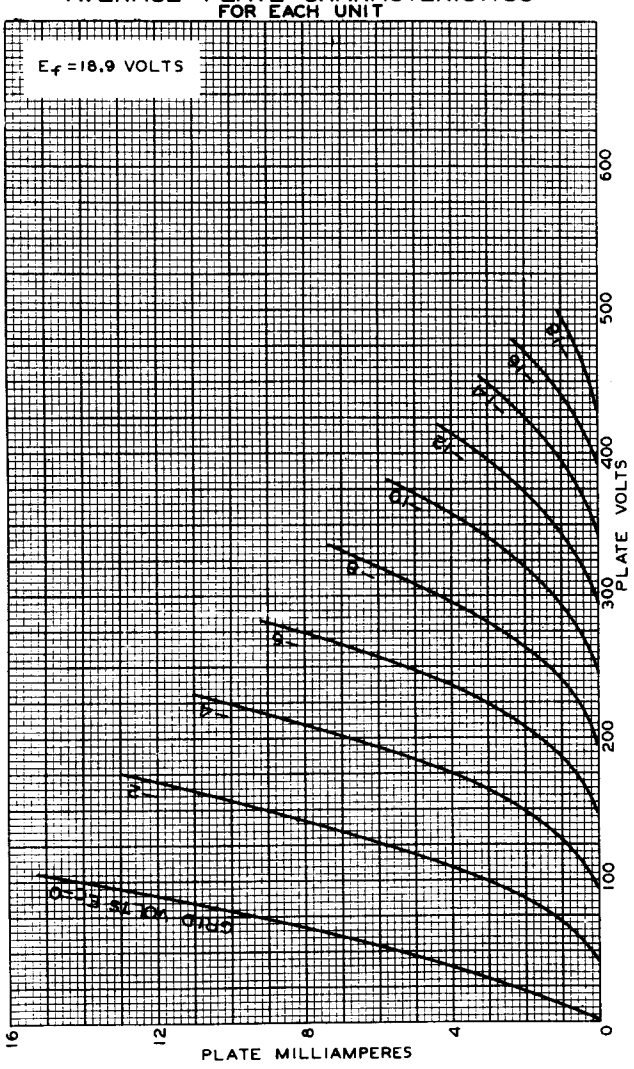
AVERAGE PLATE CHARACTERISTICS
FOR EACH UNIT

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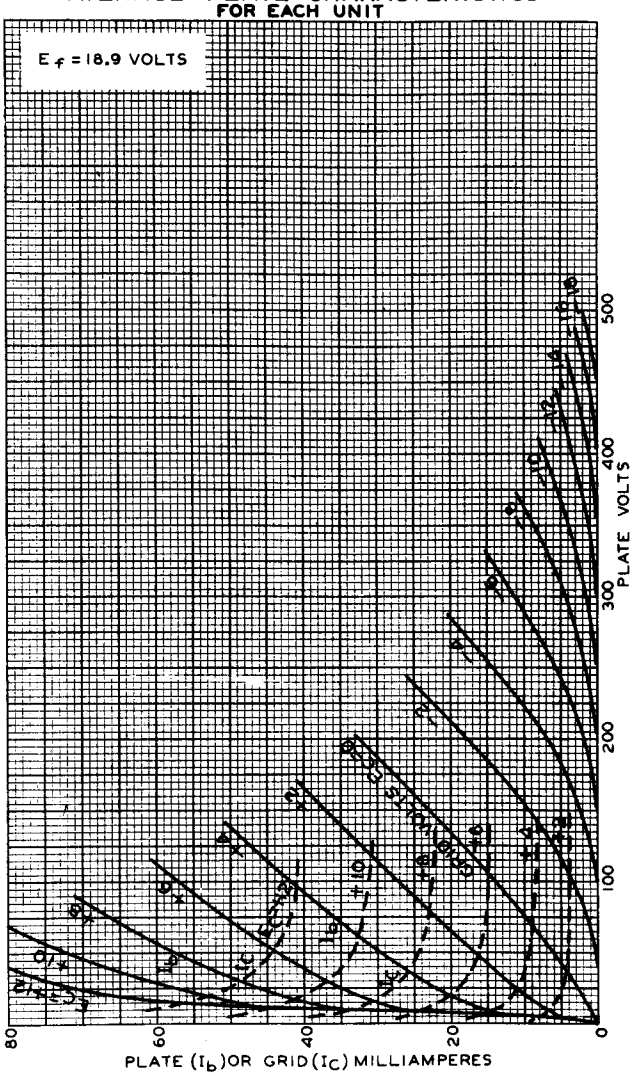
AVERAGE PLATE CHARACTERISTICS
FOR EACH UNIT

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