# 6082

# LOW-MU TWIN POWER TRIODE

## GENERAL DATA

| | | |
|---|---|---|
| Heater, for Unipotential Cathodes: | | |
| Voltage | 26.5 ± 10% | ac or dc volts |
| Current | 0.6 | amp |
| Direct Interelectrode Capacitances (Approx.): | | |
| (Each Unit, without external shield) | | |
| Grid to Plate | 8 | μμf |
| Input | 6 | μμf |
| Output | 2.2 | μμf |
| Heater to Cathode: | | |
| Triode Unit No.1 | 13 | μμf |
| Triode Unit No.2 | 13 | μμf |
| Grid of Unit No.1 to Grid of Unit No.2 | 0.5 | μμf |
| Plate of Unit No.1 to Plate of Unit No.2 | 2 | μμf |

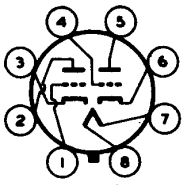
**Characteristics, Amplifier Class $A_1$ (Each Unit):**

| | | |
|---|---|---|
| Plate-Supply Voltage | 135 | volts |
| Cathode-Bias Resistor | 250 | ohms |
| Amplification Factor | 2 | |
| Plate Resistance | 280 | ohms |
| Transconductance | 7000 | μmhos |
| Plate Current | 125 | ma |

**Mechanical:**

| | |
|---|---|
| Mounting Position | Any |
| Maximum Overall Length | 4-1/16" |
| Maximum Seated Length | 3-1/2" |
| Maximum Diameter | 1-23/32" |
| Bulb | T-12 |
| Base | Large-Wafer Octal 8-Pin with Sleeve and External Barriers (JETEC No.B8-98) |
| Basing Designation for BOTTOM VIEW | 8BD |

Pin 1 - Grid of Unit No.2
Pin 2 - Plate of Unit No.2
Pin 3 - Cathode of Unit No.2
Pin 4 - Grid of Unit No.1




Pin 5 - Plate Unit No.1
Pin 6 - Cathode of Unit No.1
Pin 7 - Heater
Pin 8 - Heater

## DC AMPLIFIER

*Values are for Each Unit*

**Maximum Ratings,** *Absolute Values:*

| | | |
|---|---|---|
| PLATE VOLTAGE | 250 max. | volts |
| PLATE CURRENT | 125 max. | ma |
| PLATE DISSIPATION | 13 max. | watts |
| PEAK HEATER-CATHODE VOLTAGE: | | |
| Heater negative with respect to cathode | 300 max. | volts |
| Heater positive with respect to cathode | 300 max. | volts |

← Indicates a change



TUBE DEPARTMENT
RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY

6082

# 6082

# LOW-MU TWIN POWER TRIODE

| | | |
|---|---|---|
| BULB TEMPERATURE● . . . . . | 200 max. | °C |

**Maximum Circuit Values:**

| | | |
|---|---|---|
| Grid-Circuit Resistance: | | |
| For cathode-bias operation . . . . . | 1.0 max. | megohm |
| For fixed-bias operation□ . . . . . | 0.1 max. | megohm |
| For combined fixed- and cathode-bias operation* . . . . . | 0.1 max. | megohm |

→ **CHARACTERISTICS RANGE VALUES FOR EQUIPMENT DESIGN**

| | *Note* | *Min.* | *Max.* | |
|---|---|---|---|---|
| Heater Current . . . . . | 1 | 0.55 | 0.65 | amp |
| Amplification Factor (Each Unit) . . . . | 1,2 | 1.4 | 2.6 | |
| Plate Current (Each Unit) . . . | 1,2 | 100 | 150 | ma |
| Transconductance (Each Unit) . . . . | 1,2 | 5800 | 8200 | μmhos |
| Reverse Grid Current (Units in Parallel). | 1,3 | - | 4 | μamp |

Note 1: With 26.5 volts ac or dc on heater.

Note 2: With plate-supply voltage of 135 volts, and cathode-bias resistor of 250 ohms in each cathode (both triode units operating).

Note 3: With plate-supply voltage of 135 volts, grid resistor of 1 megohm in each grid and cathode-bias resistor of 250 ohms in each cathode (both triode units operating).

● At hottest point on bulb surface.

□ When fixed bias is used, the plate circuit should contain a protective resistance to provide a minimum drop of 15 volts dc at the normal operating conditions.

* When combined fixed- and cathode-bias is used, the cathode-bias portion should have a minimum value of 7.5 volts dc at the normal operating conditions.

→ **SPECIAL RATINGS & PERFORMANCE DATA**

**Shock Rating:**

Impact Acceleration . . . . . 450 max. g

Tubes are held rigid in four different positions in a Navy Type, High Impact (flyweight) Shock Machine and are subjected to 450 g impact acceleration.

**Fatigue Rating:**

Vibrational Acceleration . . . . . 2.5 max. g

Tubes are rigidly mounted and subjected in each of three positions to 2.5 g vibrational acceleration at 25 cycles per second for 32 hours.

**Low-Frequency Vibration Performance:**

RMS Output Voltage . . . . . 200 max. mv

Under the following conditions and with units connected in parallel: Heater voltage of 26.5 volts, plate voltage

→ Indicates a change



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RCA

# 6082

## LOW-MU TWIN POWER TRIODE

supply of 135 volts, dc grid voltage of -7 volts, plate load resistance of 2000 ohms, and vibrational acceleration of 2.5 g at 25 cycles per second.

Outline Drawing and
Average Plate Characteristics Curve
for the 6082 are the same as
shown for Type 6080