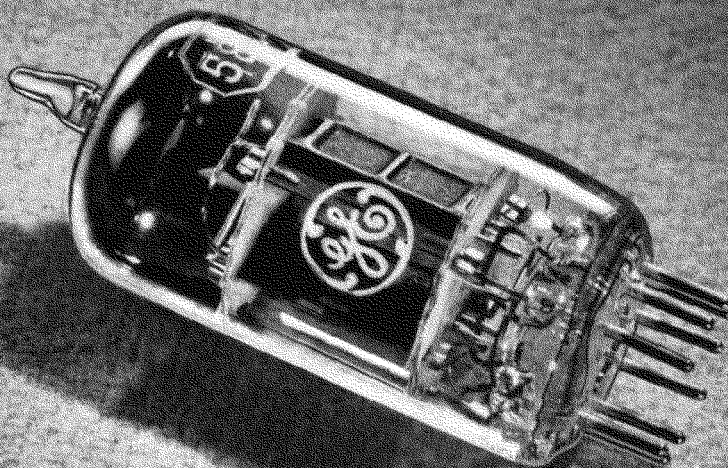




## TWIN TRIODE

### DESCRIPTION

The GL-5814 is a nine-pin miniature medium-mu tube with two triode sections with individual cathode connections. It is similar in electrical characteristics to the 12AU7 receiving tube. The GL-5814, however, incorporates distinctive me-

chanical design features, and increased heater current which provides a safety factor in cathode performance. These features combine to produce a sturdy shock-resistant tube and one which will give long life under conditions of intermittent operation.

### TECHNICAL INFORMATION

#### GENERAL

##### Electrical Data

Cathode—Coated Unipotential

|                                       | Parallel | Series        |
|---------------------------------------|----------|---------------|
| Heater voltage.....                   | 6.3      | 12.6 volts    |
| Heater current.....                   | 0.350    | 0.175 amperes |
| Direct interelectrode capacitances†   |          |               |
| Grid to plate (section number 1)..... |          | 1.5 uuf       |
| Grid to plate (section number 2)..... |          | 1.5 uuf       |
| Input (section number 1).....         |          | 1.6 uuf       |
| Input (section number 2).....         |          | 1.6 uuf       |
| Output (section number 1).....        |          | 0.50 uuf      |
| Output (section number 2).....        |          | 0.35 uuf      |

  
*Electronic*  
 TUBE

**GENERAL  ELECTRIC**

Supersedes ETX-246 dated 5-50

## TECHNICAL INFORMATION (CONT'D)

### Mechanical Data

Mounting position—Any

Envelope—T-6½ glass

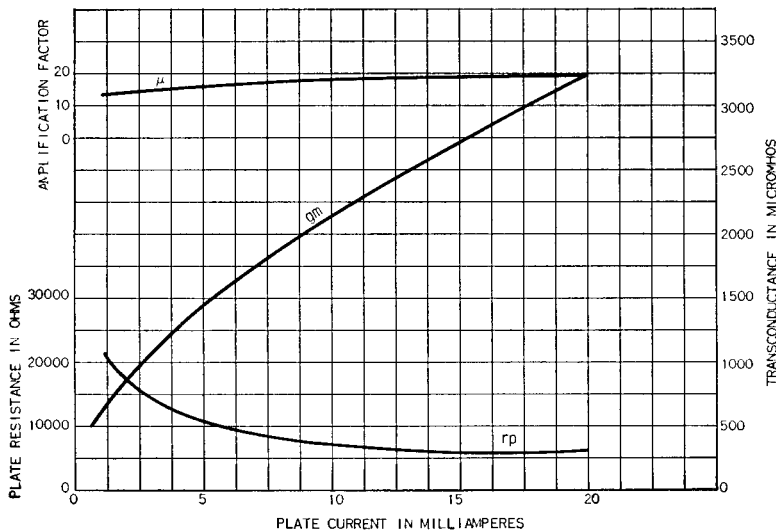
## MAXIMUM RATINGS AND TYPICAL OPERATING CONDITIONS

| Maximum Ratings                              | Design Center | Absolute          |
|----------------------------------------------|---------------|-------------------|
| Plate voltage.....                           | 300           | 330 volts         |
| Cathode current (each section).....          | 20            | 22 milliamperes   |
| Plate dissipation (each section).....        | 2.75          | 3.03 watts        |
| Peak heater-cathode voltage                  |               |                   |
| Heater negative with respect to cathode..... | 90            | 100 volts         |
| Heater positive with respect to cathode..... | 90            | 100 volts         |
| <b>Typical Operation</b>                     |               |                   |
| Class A1 amplifier (each triode section)     |               |                   |
| Plate voltage.....                           | 100           | 250 volts         |
| Grid voltage†.....                           | 0             | −8.5 volts        |
| Amplification factor.....                    | 19.5          | 17                |
| Plate resistance.....                        | 6250          | 7700 ohms         |
| Transconductance.....                        | 3100          | 2200 micromhos    |
| Plate current.....                           | 11.8          | 10.5 milliamperes |

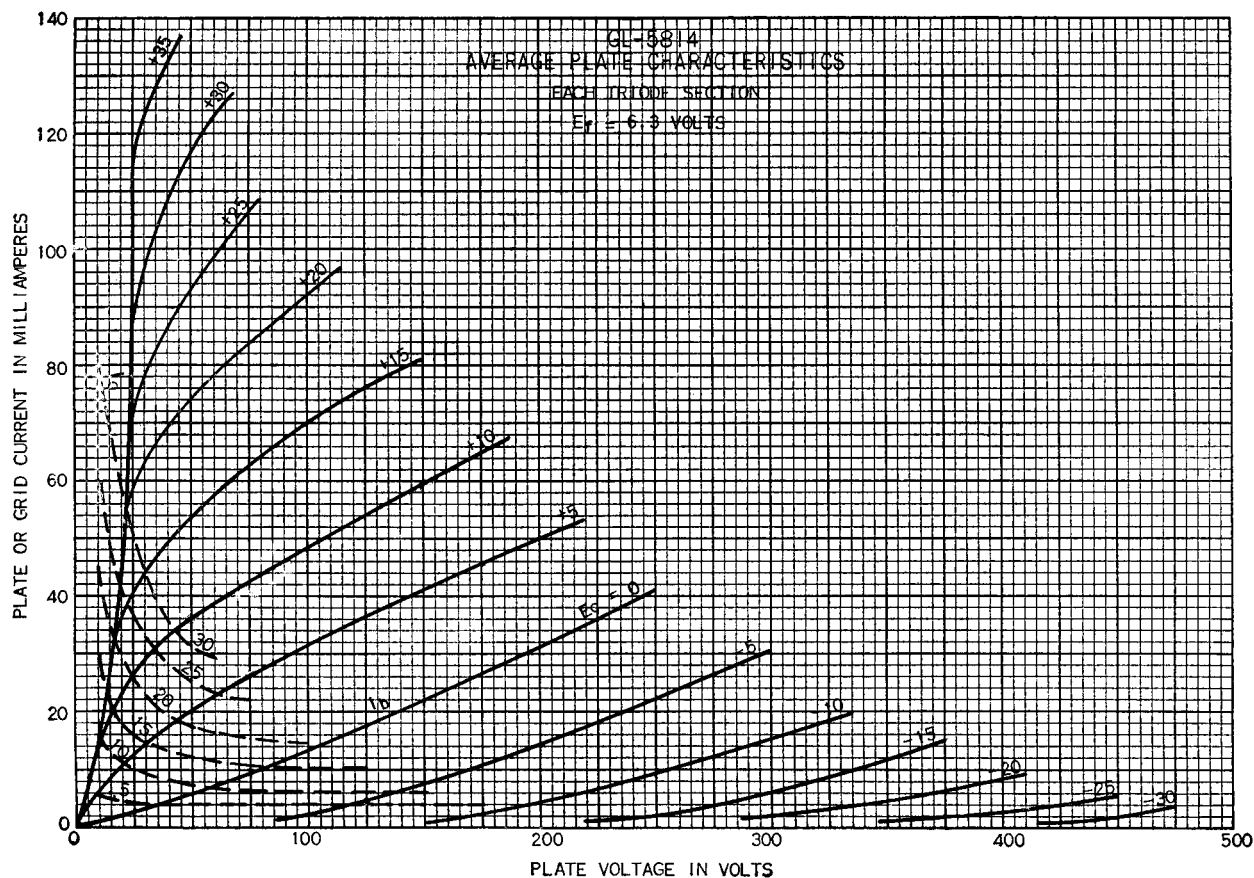
†Measured with no external shield.

‡The d-c resistance in the grid circuit under rated maximum conditions should not exceed 0.25 megohm for fixed-bias operation and 1.0 megohm for cathode-bias operation.

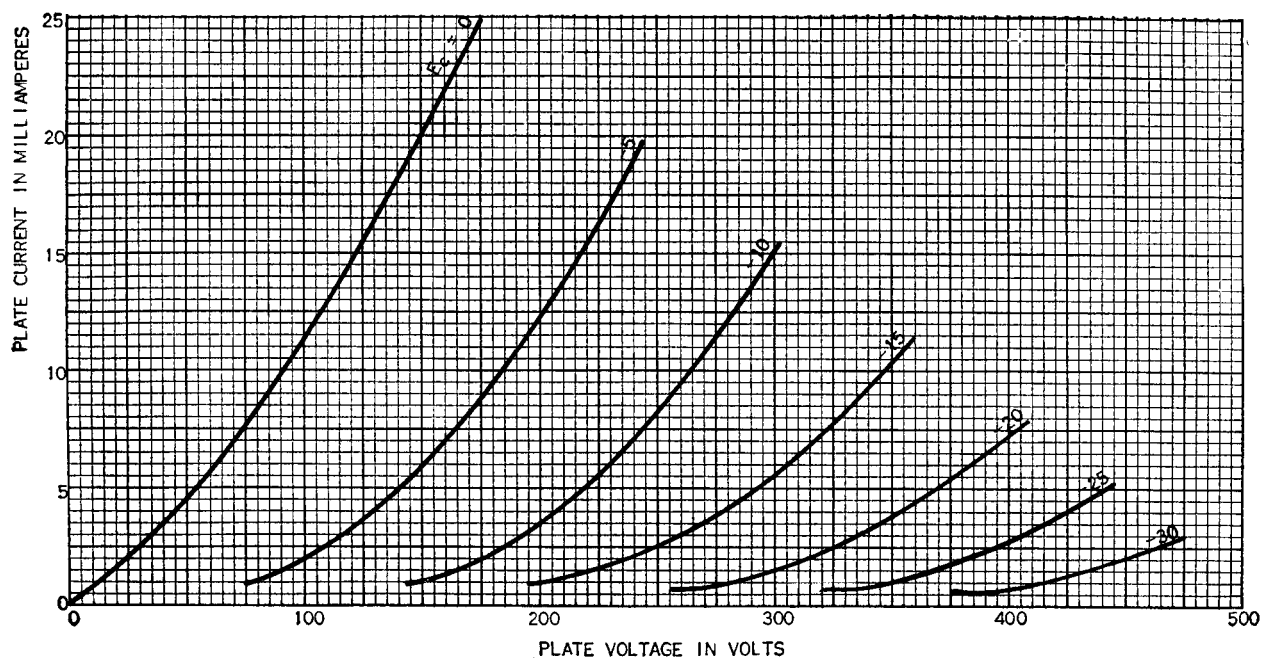
## GL-5814 AVERAGE CHARACTERISTICS $E_f = 6.3$ VOLTS PLATE VOLTAGE = 250



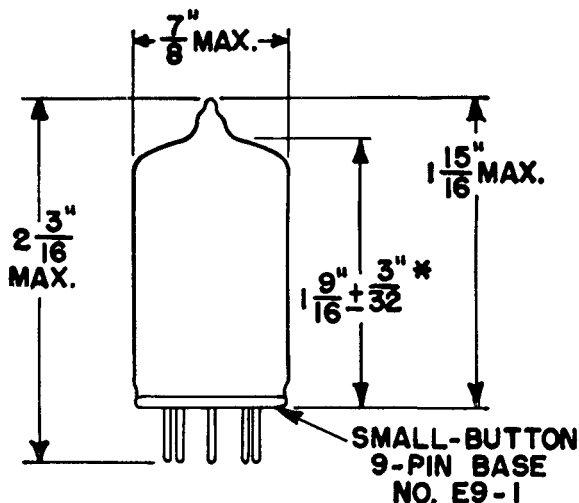
GL-5814  
AVERAGE PLATE CHARACTERISTICS  
EACH TRIODE SECTION  $E_f = 6.3$  VOLTS



GL-5814  
AVERAGE PLATE CHARACTERISTICS  
EACH TRIODE SECTION  $E_f = 6.3$  VOLTS  
HEATERS CONNECTED IN PARALLEL

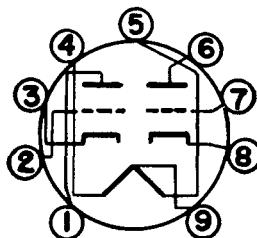


OUTLINE  
PIOTRON GL-5814



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

**BASING DIAGRAM**



- PIN 1: PLATE (SECTION NO. 2)**
- PIN 2: GRID (SECTION NO. 2)**
- PIN 3: CATHODE (SECTION NO. 2)**
- PIN 4: HEATER**
- PIN 5: HEATER**
- PIN 6: PLATE (SECTION NO. 1)**
- PIN 7: GRID (SECTION NO. 1)**
- PIN 8: CATHODE (SECTION NO. 1)**
- PIN 9: HEATER CENTER-TAP**

N-15155AZ

8-10-49

*Tube Department*

**GENERAL  ELECTRIC**

*Schenectady, N. Y.*