

# 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



**GENERAL  ELECTRIC**

Supersedes ETX-246 dated 5-50

**TECHNICAL INFORMATION (CONT'D)**

**Mechanical Data**

Mounting position—Any  
 Envelope—T-6½ glass

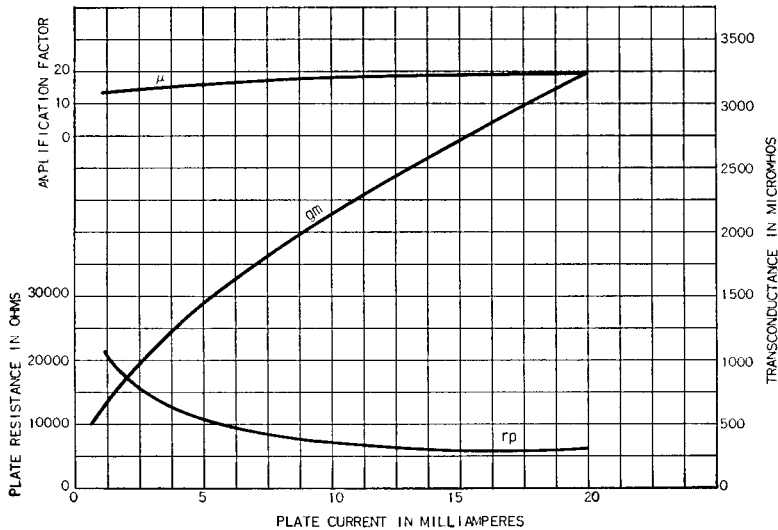
**MAXIMUM RATINGS AND TYPICAL OPERATING CONDITIONS**

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

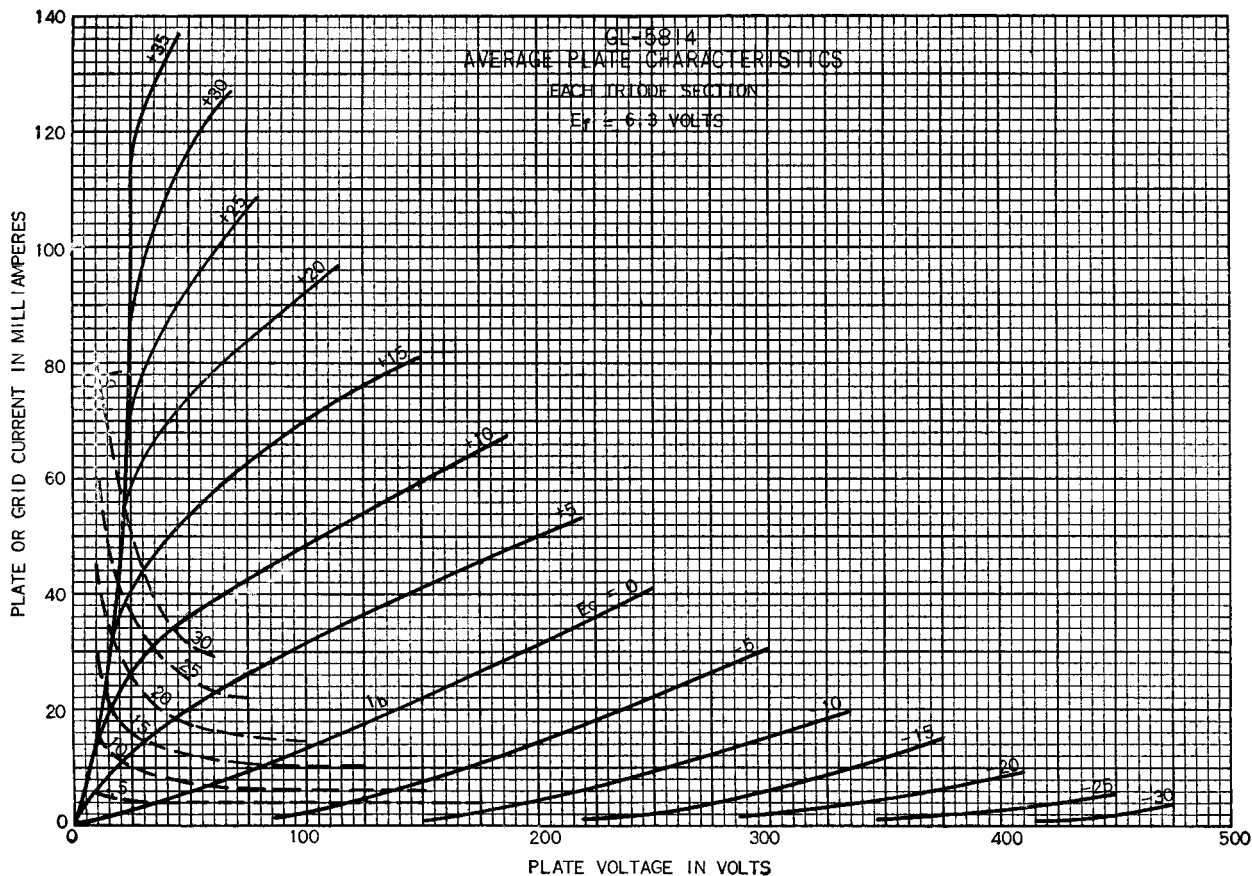
†Measured with no external shield.

‡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



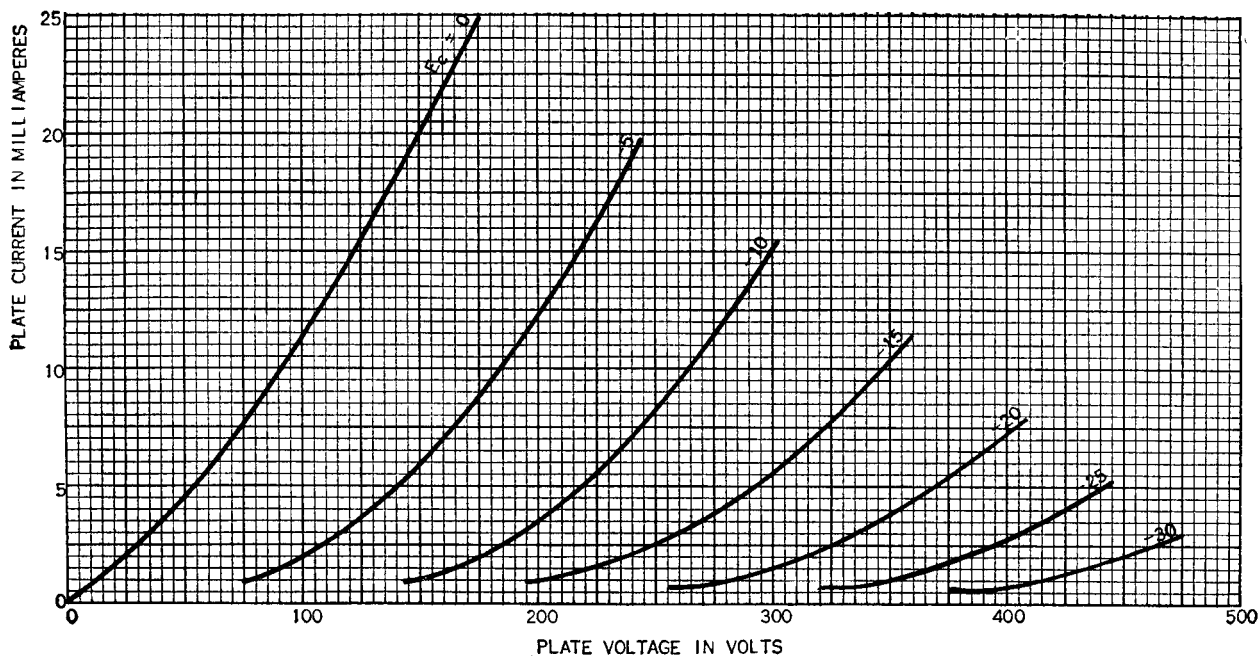
**GL-5814**  
**AVERAGE PLATE CHARACTERISTICS**  
**EACH TRIODE SECTION  $E_f = 6.3$  VOLTS**



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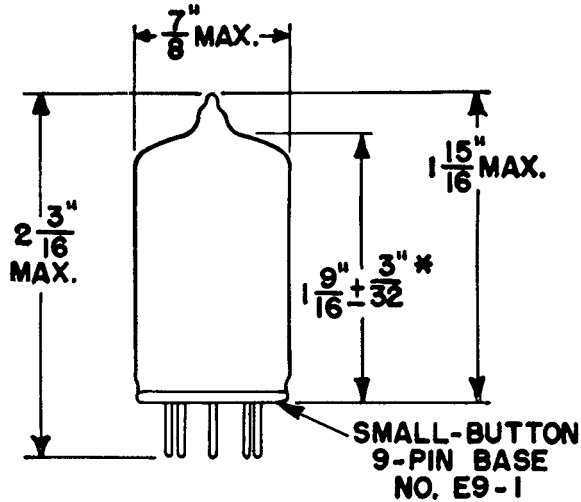
**GL-5814**  
**AVERAGE PLATE CHARACTERISTICS**  
**EACH TRIODE SECTION  $E_f = 6.3$  VOLTS**  
**HEATERS CONNECTED IN PARALLEL**



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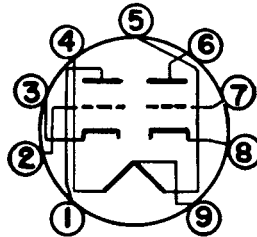
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OUTLINE  
PLIOTRON GL-5814



**\* 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.*