



## PENTODE

### DESCRIPTION

The GL-5654 is a miniature sharp-cutoff pentode similar to the Type 6AK5. The GL-5654, however, is designed for reliable service under conditions of intermittent operation.

### TECHNICAL INFORMATION

#### GENERAL

##### Electrical Data

Cathode—Coated Unipotential

Heater Voltage (A-c or D-c) ..... 6.3 Volts

Heater Current ..... 0.175 Ampere

Direct Interelectrode Capacitances\*

Grid to Plate ..... 0.02 max uuf

Input ..... 4.0 uuf

Output ..... 2.9 uuf

##### Mechanical Data

Mounting Position—Any

Envelope—T-5½ Glass



**GENERAL  ELECTRIC**

*Supersedes ETX-241A dated 3-51*

**TECHNICAL INFORMATION (CONT'D)**

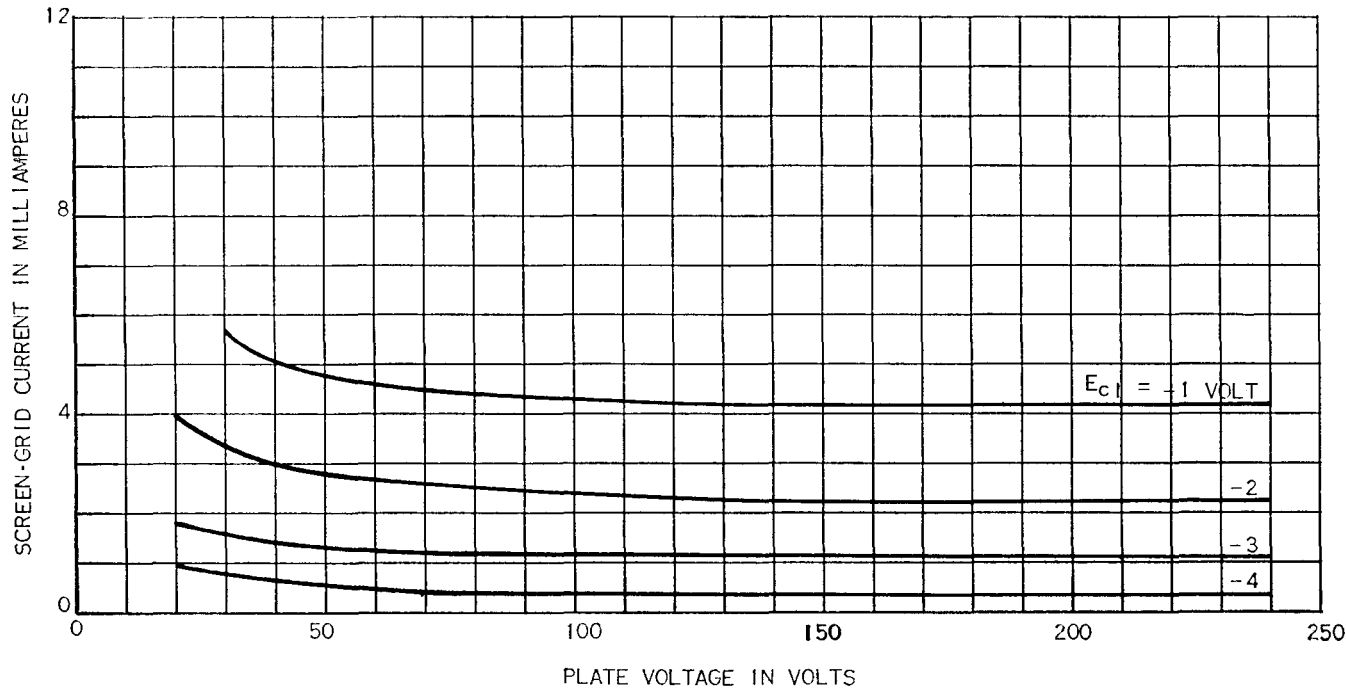
**MAXIMUM RATINGS AND TYPICAL OPERATING CONDITIONS**

|                                                              |                  |
|--------------------------------------------------------------|------------------|
| Maximum Ratings, Design Center                               |                  |
| Plate Voltage.....                                           | 180 Volts        |
| Grid-No. 2 Voltage.....                                      | 140 Volts        |
| Cathode Current.....                                         | 18 Milliamperes  |
| Plate Dissipation.....                                       | 1.7 Watts        |
| Grid-No. 2 Dissipation.....                                  | 0.5 Watt         |
| Peak Heater-cathode Voltage.....                             | 90 Volts         |
| Typical Operation                                            |                  |
| Class A <sub>1</sub> Amplifier                               |                  |
| Plate Voltage.....                                           | 120 Volts        |
| Grid-No. 2 Voltage.....                                      | 120 Volts        |
| Cathode-bias Resistor†.....                                  | 200 Ohms         |
| Plate Resistance, approximate.....                           | 0.34 Megohm      |
| Transconductance.....                                        | 5000 Micromhos   |
| Plate Current.....                                           | 7.5 Milliamperes |
| Grid-No. 2 Current.....                                      | 2.5 Milliamperes |
| Grid-No. 1 Voltage, approximate, I <sub>p</sub> = 10 ua..... | -12 Volts        |

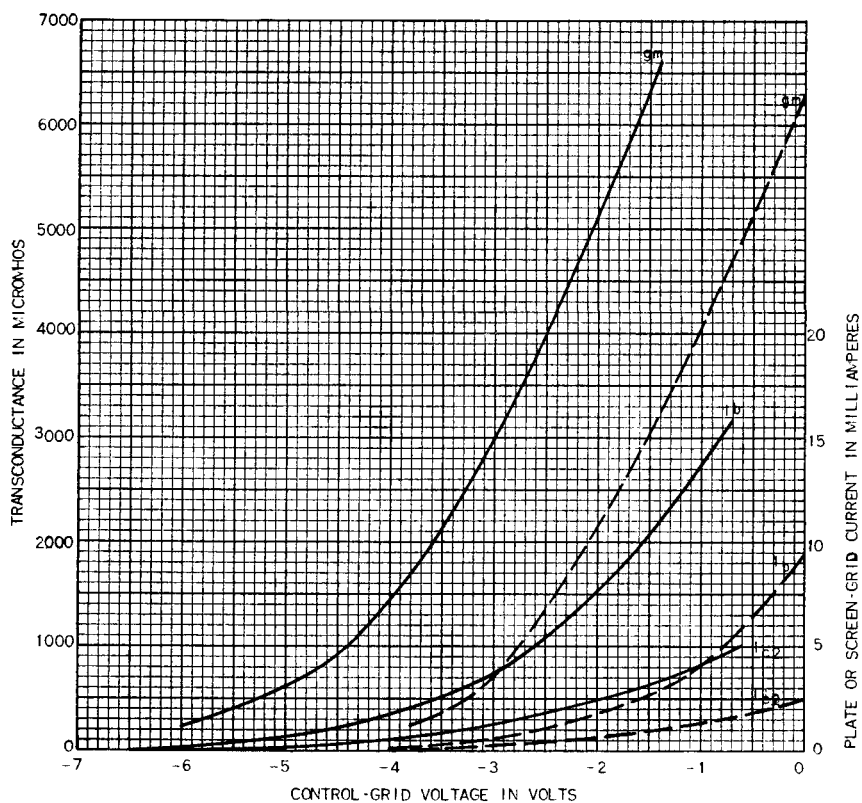
\* Approximate values with external shield connected to cathode.

† Fixed-bias operation is not recommended.

GL-5654  
SCREEN-GRID CHARACTERISTICS  
SCREEN VOLTS = 120 E<sub>f</sub> = 6.3



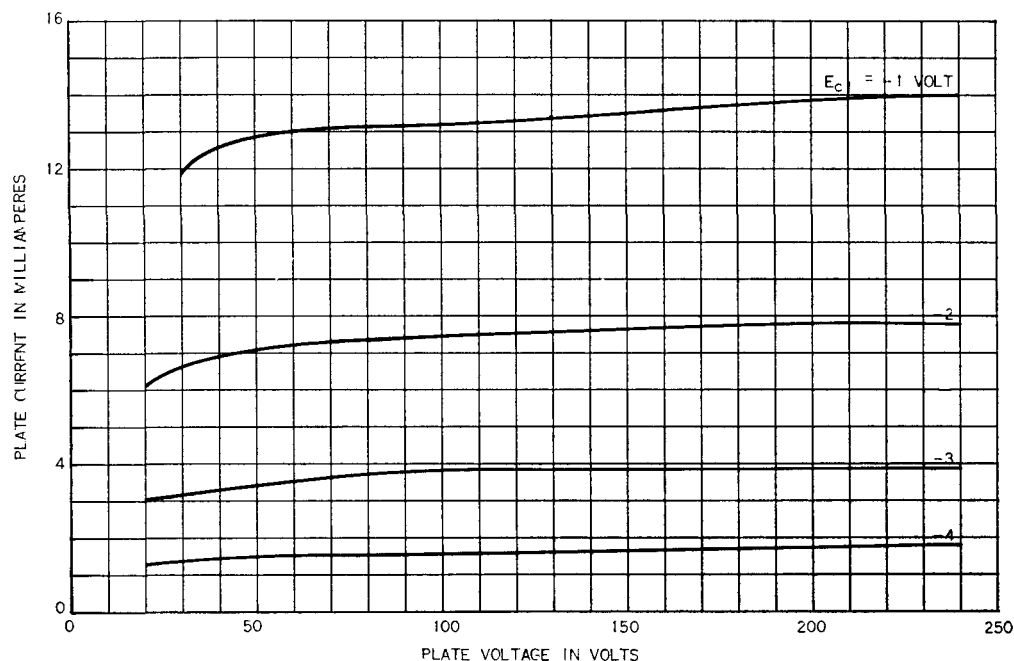
**GL-5654 AVERAGE CHARACTERISTICS**  
 — SCREEN VOLTS=120    - - - SCREEN VOLTS=75  
 PLATE VOLTS=180     $E_i=6.3$  VOLTS



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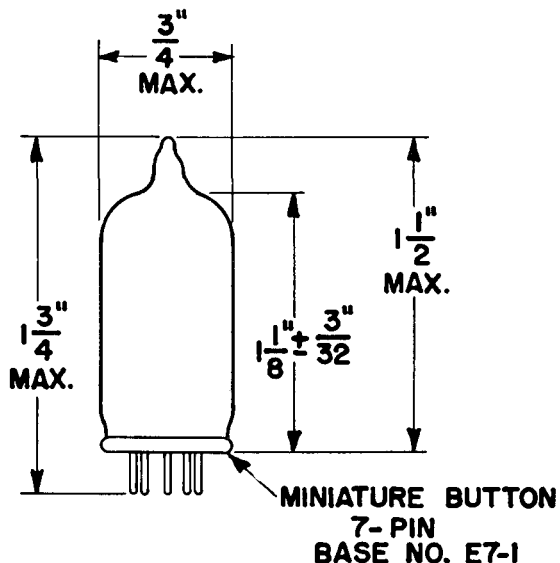
**GL-5654**  
**AVERAGE PLATE CHARACTERISTICS**  
 SCREEN VOLTS=120     $E_i=6.3$  VOLTS



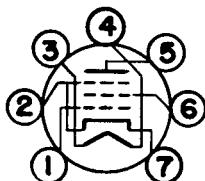
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OUTLINE GL-5654



**BASING DIAGRAM**



- PIN 1: GRID NO. 1  
 PIN 2: CATHODE, INTERNAL SHIELD, GRID NO.3  
 PIN 3: HEATER  
 PIN 4: HEATER  
 PIN 5: PLATE  
 PIN 6: GRID NO. 2  
 PIN 7: CATHODE, INTERNAL SHIELD, GRID NO. 3

N-15150AZ

5-17-49

*Tube Department*

**GENERAL  ELECTRIC**

*Schenectady, N. Y.*