



PENTAGRID CONVERTER

DESCRIPTION

The GL-5750 is a miniature pentagrid converter designed for reliable life under conditions of intermittent operation.

TECHNICAL INFORMATION

GENERAL

Electrical Data

| | |
|--|---------------|
| Cathode—indirectly heated | |
| Heater voltage (A-C or D-C)..... | 6.3 Volts |
| Heater current..... | 0.300 Amperes |
| Direct interelectrode capacitances (without external shield) | |
| Mixer grid to plate, maximum..... | 0.30 uuf |
| Mixer grid to oscillator grid, maximum..... | 0.15 uuf |
| R-f input..... | 7.1 uuf |
| Oscillator input..... | 5.5 uuf |
| Mixer output..... | 7.6 uuf |
| Oscillator grid to cathode..... | 3.0 uuf |
| Oscillator output..... | 15.0 uuf |

Mechanical Data

Mounting position—any
Envelope—T-5½ glass

GENERAL  ELECTRIC

Supersedes ETX-262 dated 6-50


Electronic
TUBE

TECHNICAL INFORMATION (CONT'D)

MAXIMUM RATINGS AND TYPICAL OPERATING CONDITIONS

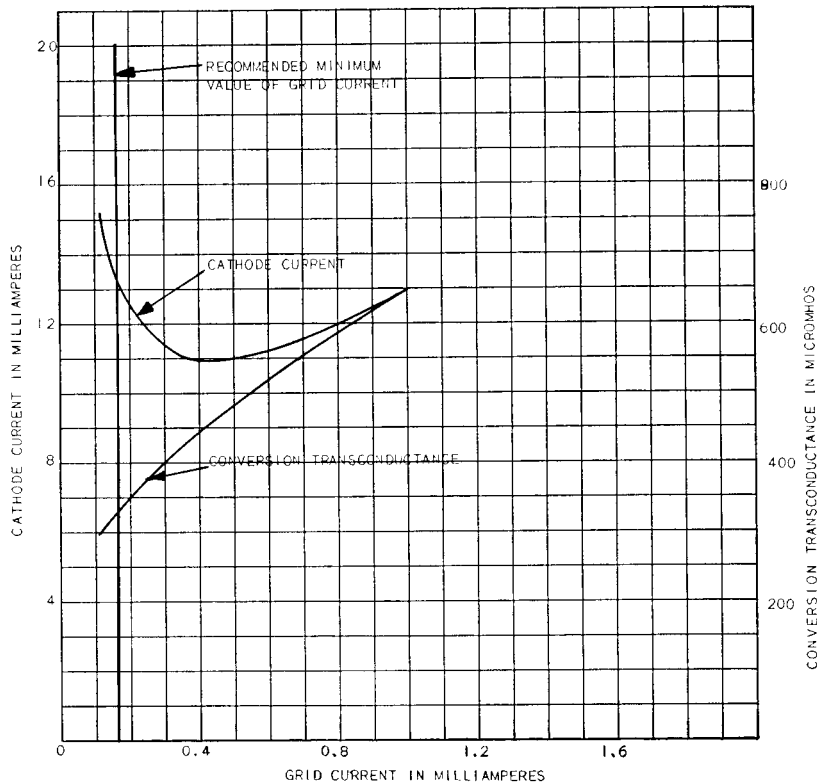
| | | |
|--|--------|-------------------|
| Maximum ratings, design center | | |
| Plate voltage..... | 300 | volts |
| Screen voltage..... | 100 | volts |
| Screen supply voltage..... | 300 | volts |
| Positive grid No. 3 bias voltage..... | 0 | volts |
| Negative grid No. 3 bias voltage..... | 50 | volts |
| Plate dissipation..... | 1.0 | watts |
| Grid No. 2 dissipation..... | 1.0 | watts |
| Total cathode current..... | 14 | milliamperes |
| Heater-cathode voltage..... | 90 | volts |
| Typical operation | | |
| Converter service—separate excitation* | | |
| Plate voltage..... | 100 | 250 volts |
| Grid No. 3 voltage..... | -1.5 | -1.5 volts |
| Screen voltage..... | 100 | 100 volts |
| Oscillator grid voltage, rms..... | 10 | 10 volts |
| Oscillator grid resistance..... | 20,000 | 20,000 ohms |
| Plate resistance, approximate..... | 0.4 | 1.0 megohms |
| Oscillator grid current..... | 0.5 | 0.5 milliamperes |
| Conversion transconductance..... | 455 | 475 micromhos |
| Plate current..... | 2.6 | 2.6 milliamperes |
| Screen current..... | 7.5 | 7.5 milliamperes |
| Total cathode current..... | 10.6 | 10.6 milliamperes |
| Grid No. 3 voltage, $G_c = 10$ umhos..... | -30 | -30 volts |
| Grid No. 3 voltage, $G_c = 100$ umhos..... | -6 | -6 volts |
| Oscillator transconductance§..... | 7800 | 7800 micromhos |
| Oscillator plate current§..... | 25 | 25 milliamperes |
| Oscillator amplification factor§..... | 20 | 20 |

*The characteristics shown with separate excitation correspond very closely to those obtained in a self-excited oscillator circuit operating with zero bias.

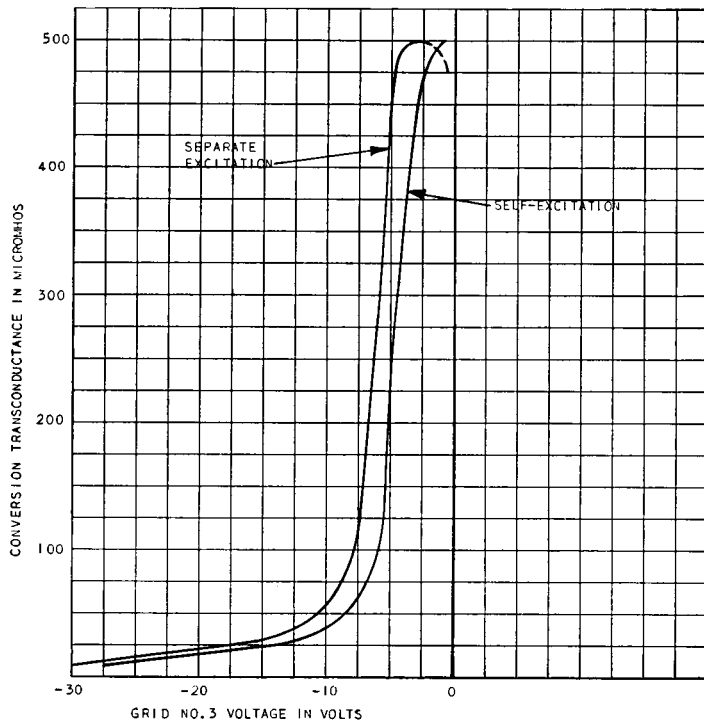
§Approximate values with grids number 1 and number 3 at zero volts and with grids number 2 and number 4 connected to plate and operated at 100 volts.

**GL-5750
OPERATION CHARACTERISTICS**

$E_r = 6.3$ VOLTS, $E_b = 250$ VOLTS
 E_{c2} AND $E_{c4} = 100$ VOLTS
 $E_{c3} = -1.5$ VOLTS, $R_x = 20,000$ OHMS



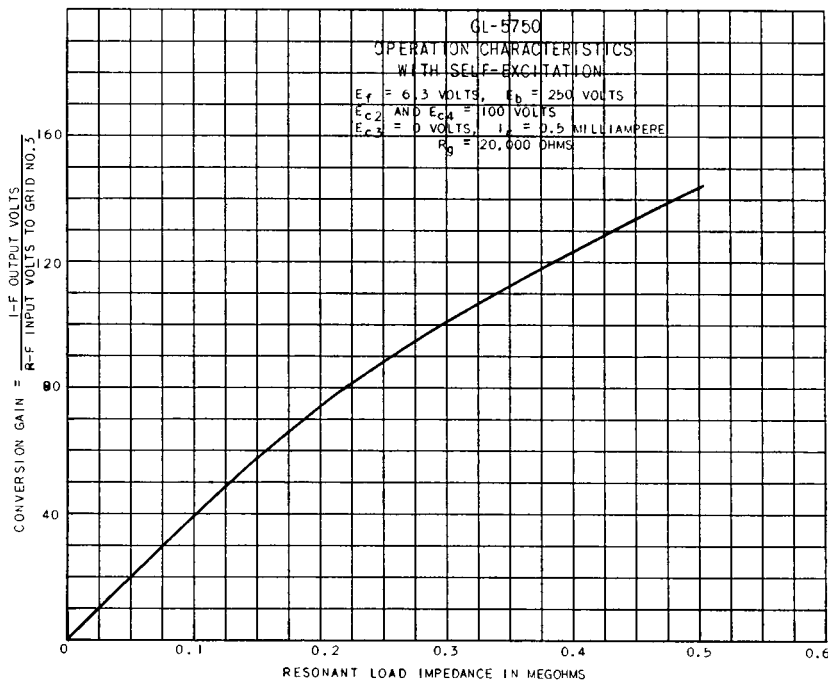
5750
OPERATION CHARACTERISTICS
 $E_f = 6.3$ VOLTS, $E_b = 250$ VOLTS
 E_{c2} AND $E_{c4} = 100$ VOLTS
 $I_c = 0.5$ MILLIAMPERE, $R_g = 20,000$ OHMS



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1-12-50

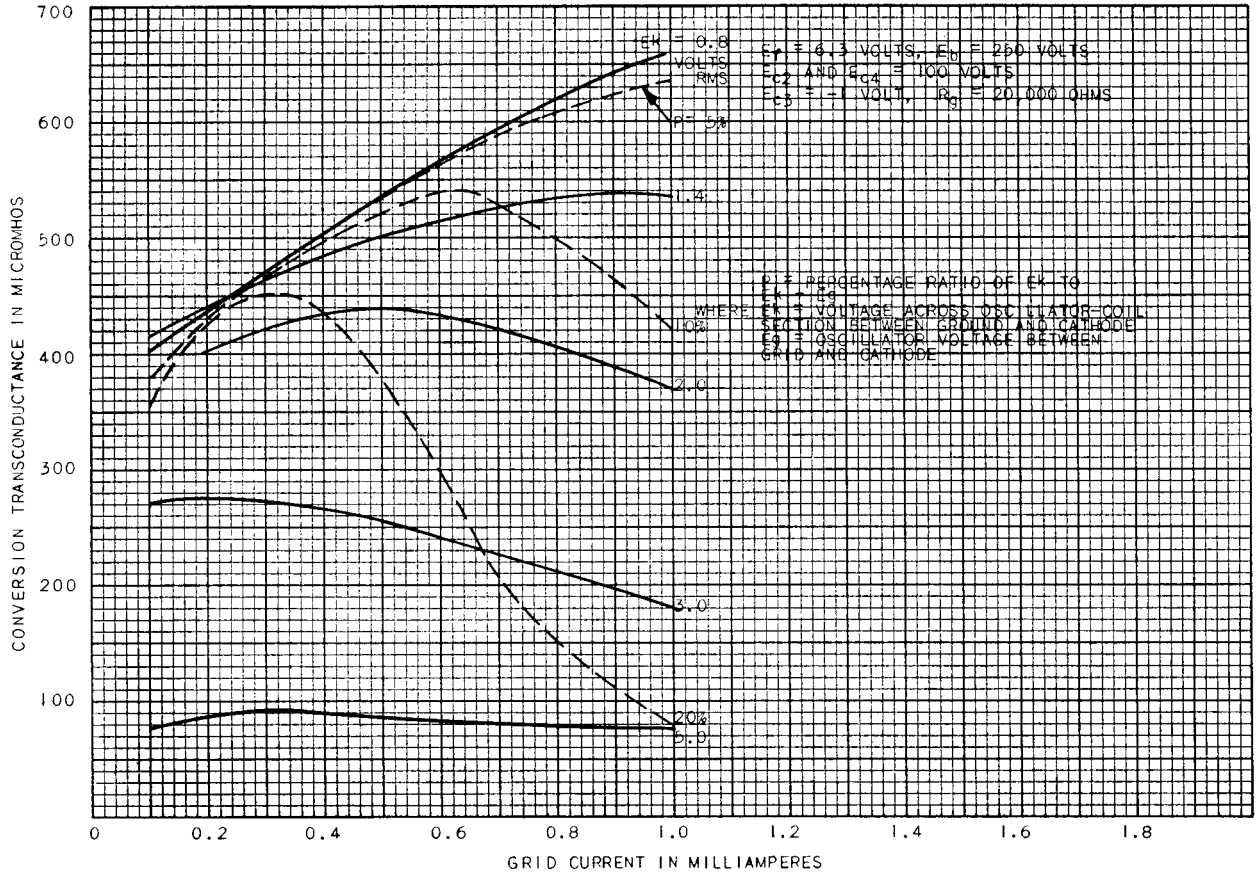
5750
**OPERATION CHARACTERISTICS
 WITH SELF-EXCITATION**
 $E_f = 6.3$ VOLTS, $E_b = 250$ VOLTS
 E_{c2} AND $E_{c4} = 100$ VOLTS
 $E_{c3} = 0$ VOLTS, $I_c = 0.5$ MILLIAMPERE
 $R_g = 20,000$ OHMS



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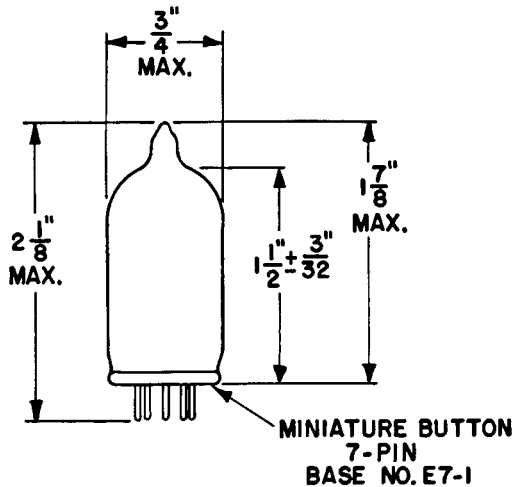
5750
 OPERATION CHARACTERISTICS
 WITH SELF-EXCITATION



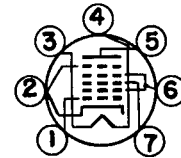
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OUTLINE
 GL-5750



BASING DIAGRAM



7CH

- PIN 1: GRID NO. 1 (OSCILLATOR GRID)
- PIN 2: CATHODE AND GRID NO. 5
- PIN 3: HEATER
- PIN 4: HEATER
- PIN 5: PLATE
- PIN 6: GRID NO. 2 AND GRID NO. 4 (SCREEN)
- PIN 7: GRID NO. 3

N15166AZ

1-12-50

Tube Department

GENERAL ELECTRIC
 Schenectady, N. Y.