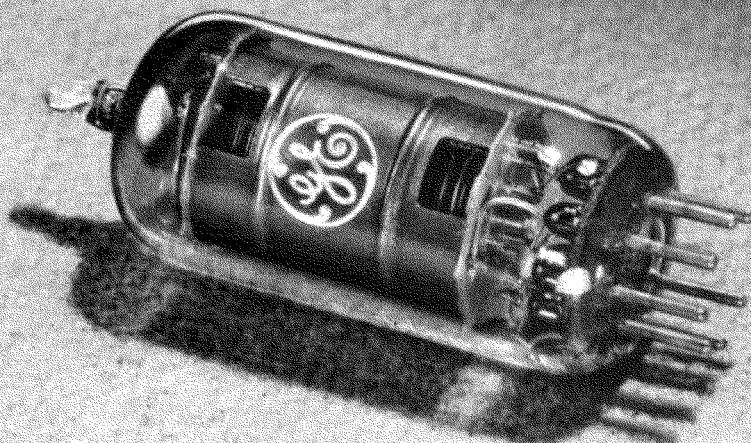




PENTAGRID CONVERTER

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 Ampere

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.

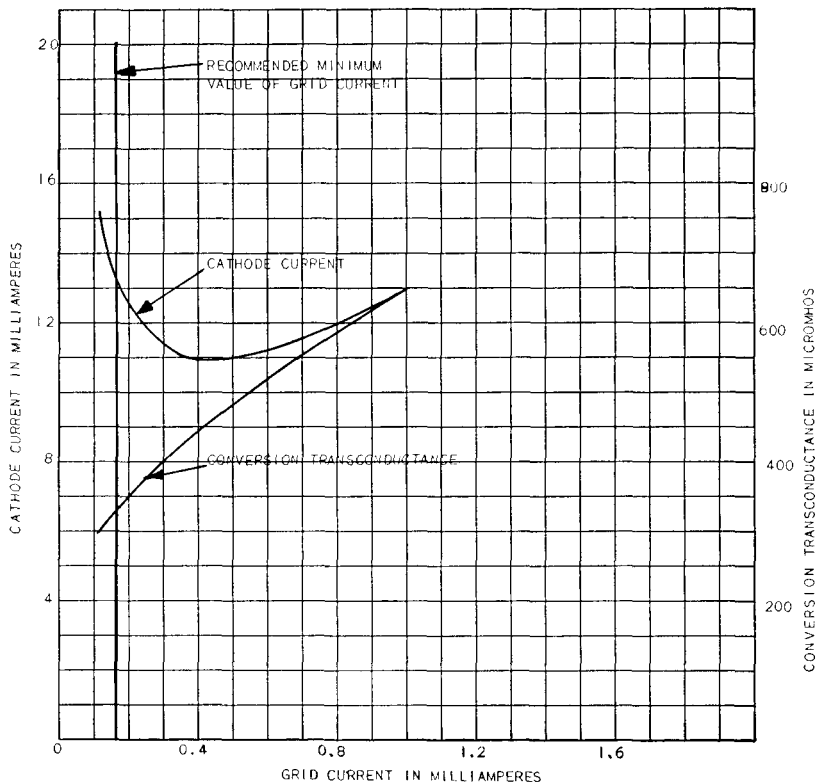
§Approximate values with grids number 1 and number 3 at zero volts and with grids number 2 and number 4 connected to plate and operated at 100 volts.

GL-5750
OPERATION CHARACTERISTICS

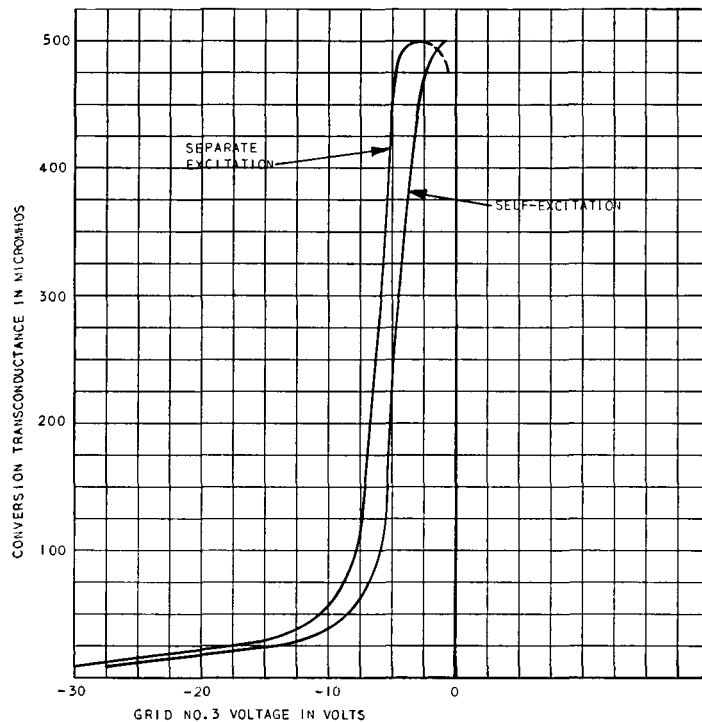
$E_f = 6.3$ VOLTS, $E_b = 250$ VOLTS

E_{c2} AND $E_{c4} = 100$ VOLTS

$E_{c3} = -1.5$ VOLTS, $R_g = 20,000$ OHMS



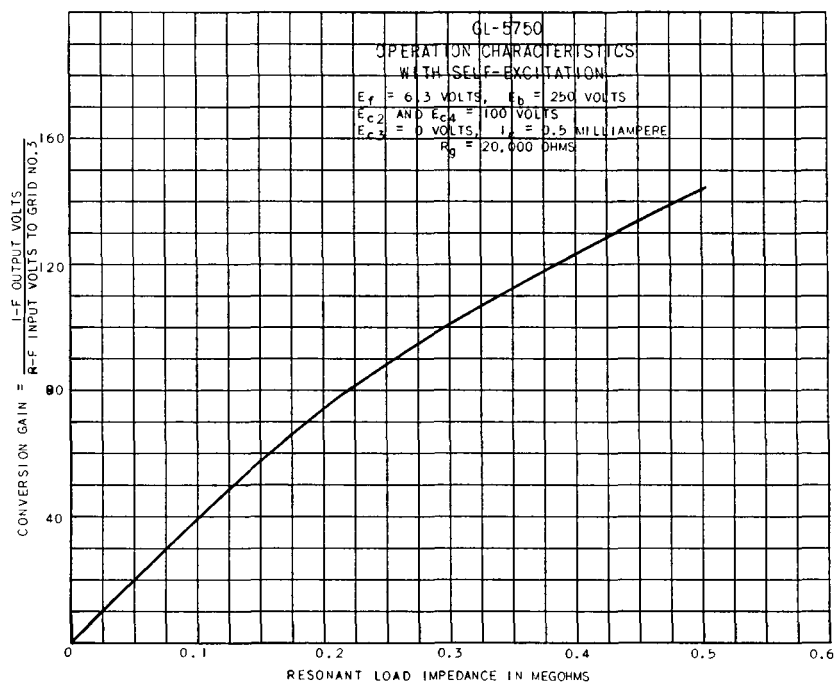
5750
OPERATION CHARACTERISTICS
 $E_f = 6.3$ VOLTS, $E_b = 250$ VOLTS
 E_{c2} AND $E_{c4} = 100$ VOLTS
 $I_c = 0.5$ MILLIAMPERE, $R_g = 20,000$ OHMS



K-69087-72A340

1-12-50

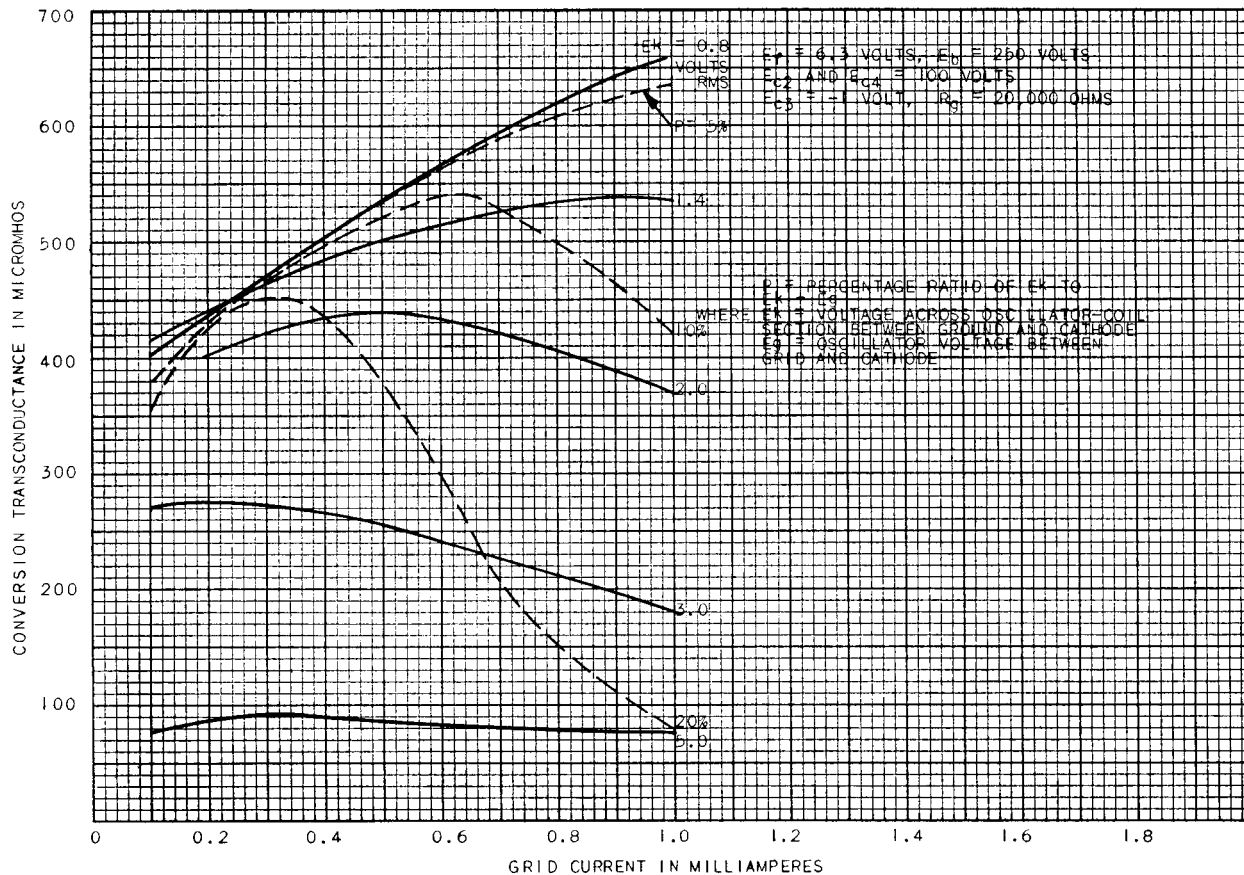
5750
OPERATION CHARACTERISTICS
WITH SELF-EXCITATION
 $E_f = 6.3$ VOLTS, $E_b = 250$ VOLTS
 E_{c2} AND $E_{c4} = 100$ VOLTS
 $E_{c3} = 0$ VOLTS, $I_c = 0.5$ MILLIAMPERE
 $R_g = 20,000$ OHMS



K-69087-72A341

1-12-50

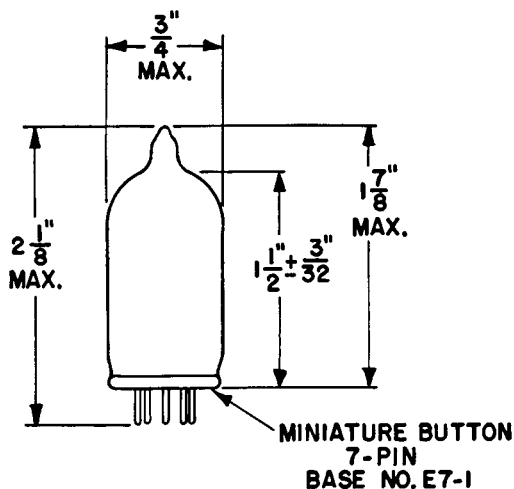
OPERATION CHARACTERISTICS
WITH SELF-EXCITATION



K-69087-72A342

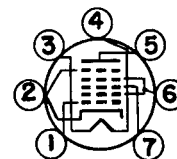
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OUTLINE
GL-5750



N15166AZ

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

1-12-50

Tube Department

GENERAL ELECTRIC
Schenectady, N. Y.