35L6-GT

BEAM PENTODE

DESCRIPTION AND RATING

The 35L6-GT is a beam pentode primarily designed for use in the audio frequency power output stage of radio receivers. Features include high power sensitivity and high efficiency at relatively low plate and screen voltages.

GENERAL

ELECTRICAL
Cathode—Coated Unipotential
Heater Voltage, AC or DC ..................... 35.0 Volts
Heater Current .................................. 0.15 Amperes

MECHANICAL
Mounting Position—Any
Envelope—T-9, Glass
Base—B6-81 or B7-7, Intermediate-Shell Octal 6- or 7-Pin
or B6-84 or B7-47, Short Intermediate-Shell Octal 6- or 7-Pin

MAXIMUM RATINGS

DESIGN-CENTER VALUES
Plate Voltage ...................................... 200 Volts
Screen Voltage ................................... 125 Volts
Plate Dissipation ................................ 8.5 Watts
Screen Dissipation ................................. 1.0 Watts
Heater-Cathode Voltage
Heater Positive with Respect to Cathode ........... 90 Volts
Heater Negative with Respect to Cathode ........... 90 Volts
Grid-Number 1 Circuit Resistance
With Fixed Bias .................................. 0.1 Megohms
With Cathode Bias ................................ 0.5 Megohms

CHARACTERISTICS AND TYPICAL OPERATION

CLASS A1 AMPLIFIER
Plate Voltage ..................................... 110 200 Volts
Screen Voltage ................................... 110 125 Volts
Grid-Number 1 Voltage .......................... –7.5 .... Volts
Cathode-Bias Resistor ........................... 180 Ohms
Peak AF Grid-Number 1 Voltage ................ 7.5 8.0 Volts
Plate Resistance, approximate ................. 14000 34000 Ohms
Transconductance ............................... 5800 6100 Micromhos
Zero-Signal Plate Current ....................... 40 43 Milliamperes
Maximum-Signal Plate Current ................. 41 43 Milliamperes
Zero-Signal Screen Current ..................... 3.0 2.0 Milliamperes
Maximum-Signal Screen Current ............... 7.0 5.5 Milliamperes
Load Resistance ................................ 2500 5000 Ohms
Total Harmonic Distortion, approximate ....... 10 10 Percent
Maximum-Signal Power Output .................. 1.5 3.0 Watts

PHYSICAL DIMENSIONS

EIA 9-11
OR 9-41
**AVERAGE CHARACTERISTICS**

- \( I_{c1} \) @ \( E_{c1} = +7.5 \) VOLTS
  - +15.0
  - +12.5
  - +10.0
  - +7.5
  - +5.0
  - +2.5
  - +1.0
  - -2.5
  - -5.0
  - -7.5
  - -10
  - -12.5

- \( I_{c2} \) @ \( E_{c2} = 110 \) VOLTS

**GRID-NUMBER 1 CURRENT (I_{c2}) IN MILLIAMPERES**

**OPERATION CHARACTERISTICS**

- \( E_f = \text{RATED VALUE} \)
- \( E_b = 200 \) VOLTS
- \( E_{c2} = 125 \) VOLTS
- \( R_k = 180 \) OHMS
- \( E_{sig} = 5.65 \) VOLTS (RMS)

**POWER OUTPUT IN WATTS**

**TOTAL HARMONIC DISTORTION IN PERCENT**

**DISTORTION**

**SCREEN CURRENT**

**MAXIMUM-SIGNAL PLATE CURRENT IN MILLIAMPERES**

**MAXIMUM-SIGNAL SCREEN CURRENT IN MILLIAMPERES**

**LOAD RESISTANCE IN OHMS**