The 6CY5 is a miniature sharp-cutoff tetrode designed for radio-frequency amplifier use in VHF television tuners. Features of the tube include high transconductance, high input impedance, and low interelectrode capacitances.

**GENERAL**

**ELECTRICAL**
- Cathode—Coated Unipotential
- Heater Voltage, AC or DC: 6.3 ±10% Volts
- Heater Current: 0.2 Amperes
- Direct Inter-electrode Capacitances:
  - Grid-Number 1 to Plate: 0.03 μf
  - Input: 4.5 μf
  - Output: 3.0 μf

**MECHANICAL**
- Mounting Position—Any
- Envelope—T-5½, Glass
- Base—E7-1, Miniature Button 7-Pin

**MAXIMUM RATINGS**

**DESIGN-MAXIMUM VALUES**
- Plate Voltage: 180 Volts
- Screen-Supply Voltage: 180 Volts
- Screen Voltage—See Screen Rating Chart
- Positive DC Grid-Number 1 Voltage: 0 Volts
- Plate Dissipation: 2.0 Watts
- Screen Dissipation: 0.5 Watts
- DC Cathode Current: 20 Milliamperes
- Heater-Cathode Voltage:
  - Heater Positive with Respect to Cathode: 100 Volts
  - Heater Negative with Respect to Cathode: 100 Volts

Design-Maximum ratings are limiting values of operating and environmental conditions applicable to a bogey tube of a specified type as defined by its published data, and should not be exceeded under the worst probable conditions.

The tube manufacturer chooses these values to provide acceptable serviceability of the tube, taking responsibility for the effects of changes in operating conditions due to variations in tube characteristics.

The equipment manufacturer should design so that initially and throughout life no design-maximum value for the intended service is exceeded with a bogey tube under the worst probable operating conditions with respect to supply-voltage variation, equipment component variation, equipment control adjustment, load variation, signal variation, and environmental conditions.
CHARACTERISTICS AND TYPICAL OPERATION

AVERAGE CHARACTERISTICS

Plate Voltage .................................................. 125 Volts
Screen Voltage ................................................... 80 Volts
Grid-Number 1 Voltage ....................................... -1.0 Volts
Plate Resistance, approximate ......................... 100000 Ohms
Transconductance .............................................. 8000 Micromhos
Plate Current ...................................................... 10 Milliamperes
Screen Current ................................................... 1.5 Milliamperes
Grid-Number 1 Voltage, approximate
   I_b = 20 Microamperes ..................................... -6 Volts

* With External Shield (EIA 316) connected to Cathode.
AVERAGE TRANSFER CHARACTERISTICS

$E_f = $ RATED VALUE
$E_b = 125$ VOLTS

GRID-NUMBER 1 VOLTAGE IN VOLTS

PLATE CURRENT IN MILLIAMPERES

-10 -8 -6 -4 -2 0

JANUARY 31, 1958

AVERAGE TRANSFER CHARACTERISTICS

$E_f = $ RATED VALUE
$E_b = 125$ VOLTS

GRID-NUMBER 1 VOLTAGE IN VOLTS

SCREEN CURRENT IN MILLIAMPERES

-10 -8 -6 -4 -2 0

JANUARY 31, 1958
AVERAGE TRANSFER CHARACTERISTICS

$E_f = \text{RATED VALUE}$
$E_b = 125 \text{ VOLTS}$

SCREEN RATING CHART

AREA OF
PERMISSIBLE OPERATION

ELECTRONIC COMPONENTS DIVISION
GENERAL ELECTRIC