Electronic TUBES

# 6CY5

## TETRODE

### FOR VHF RF AMPLIFIER APPLICATIONS

## DESCRIPTION AND RATING

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 Interelectrode Capacitances* | | |
| Grid-Number 1 to Plate | 0.03 | μμf |
| Input | 4.5 | μμf |
| Output | 3.0 | μμf |

**MECHANICAL**

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

### MAXIMUM RATINGS

**DESIGN-MAXIMUM VALUES**

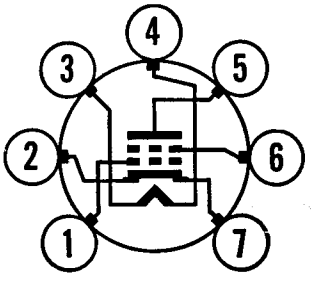
| | | |
|---|---|---|
| Plate Voltage | 180 | Volts |
| Screen-Supply Voltage | 180 | Volts |
| Screen Voltage—See Screen Rating Chart | | |
| Positive DC Grid-Number 1 Voltage | 0 | Volts |
| Plate Dissipation | 2.0 | Watts |
| Screen Dissipation | 0.5 | Watts |
| DC Cathode Current | 20 | Milliamperes |
| 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.

**BASING DIAGRAM**

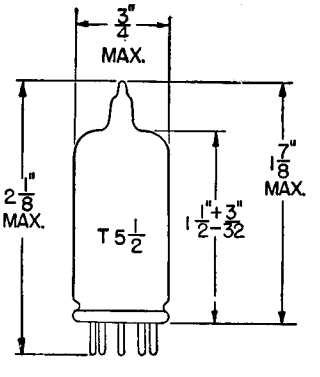



EIA 7EW

**TERMINAL CONNECTIONS**

Pin 1—Grid Number 1
Pin 2—Cathode and Internal Shield
Pin 3—Heater
Pin 4—Heater
Pin 5—Plate
Pin 6—Grid Number 2 (Screen)
Pin 7—Cathode and Internal Shield

**PHYSICAL DIMENSIONS**




EIA 5-2

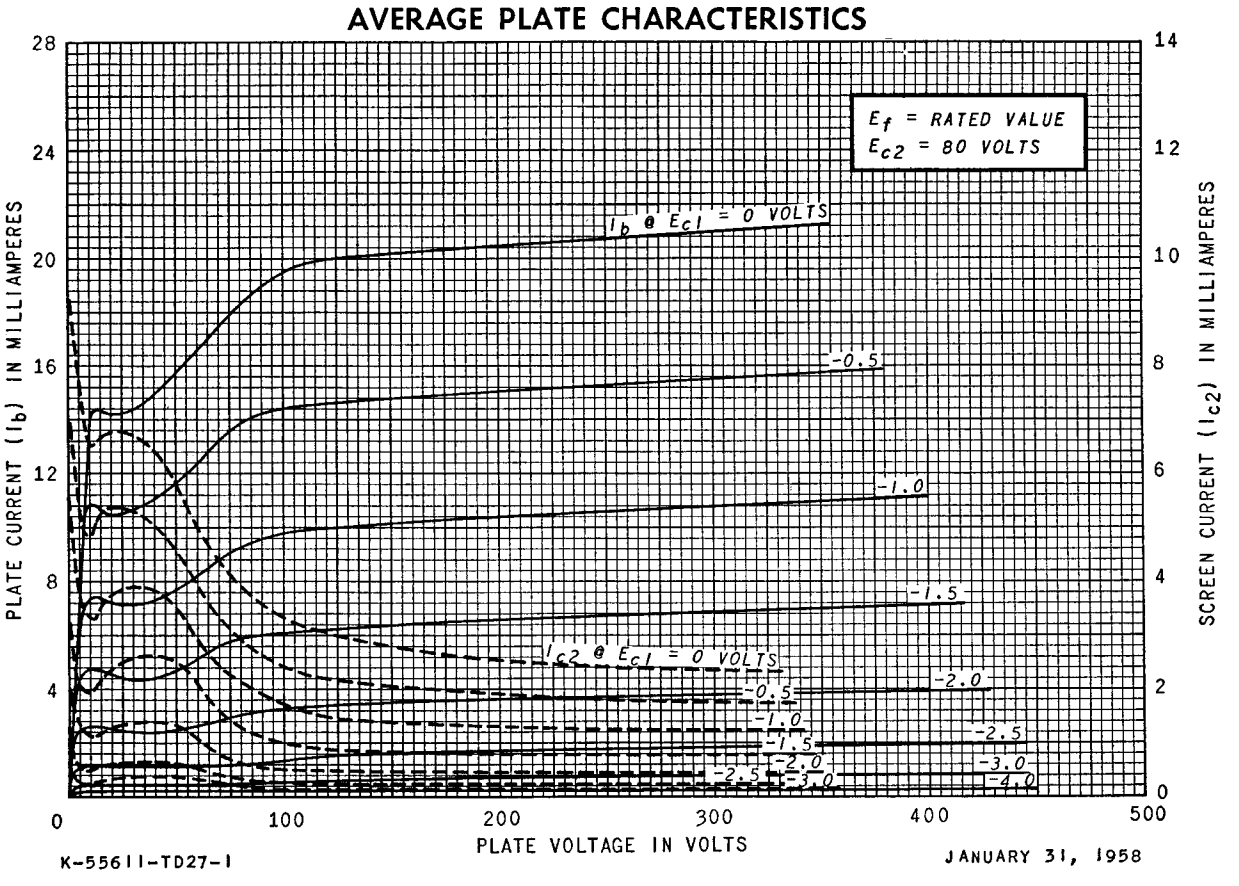
GENERAL ELECTRIC

# CHARACTERISTICS AND TYPICAL OPERATION

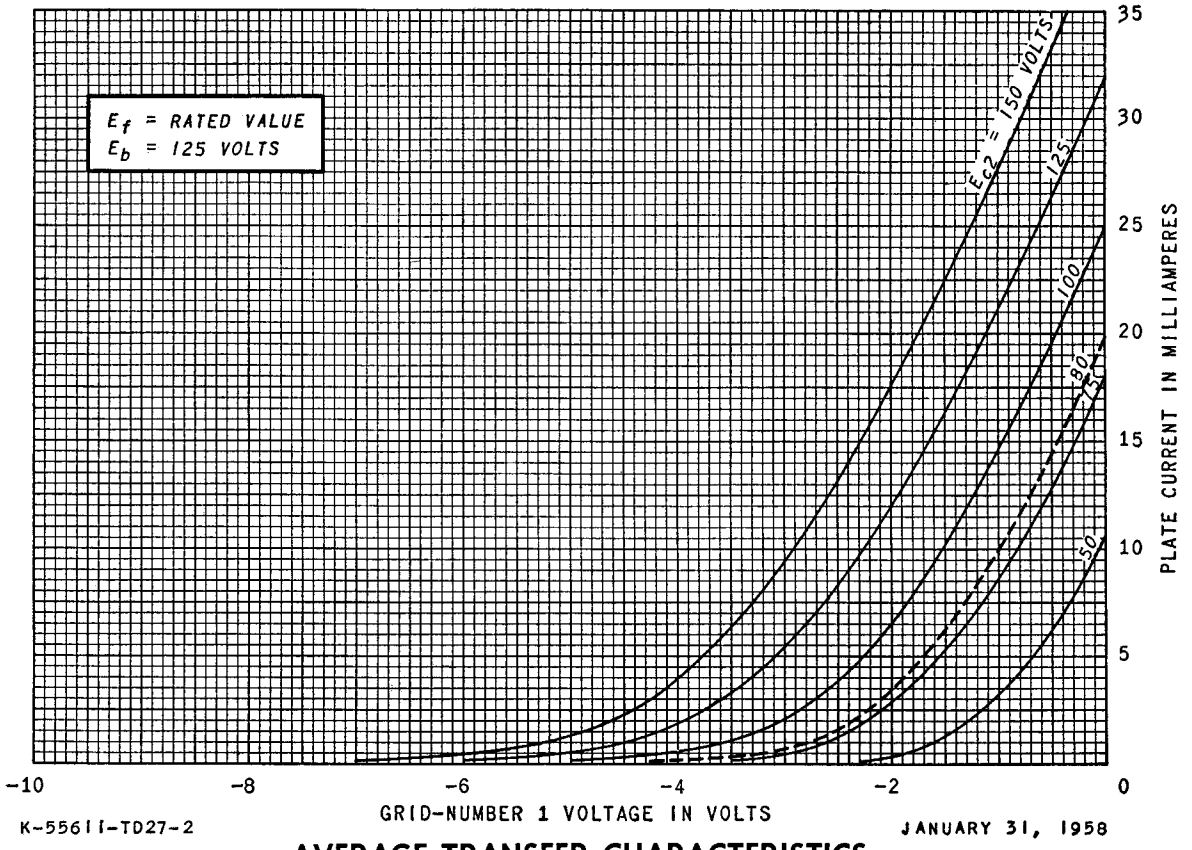
## AVERAGE CHARACTERISTICS

| | | |
|---|---|---|
| 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 Ib = 20 Microamperes | −6 | Volts |

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



## AVERAGE TRANSFER CHARACTERISTICS

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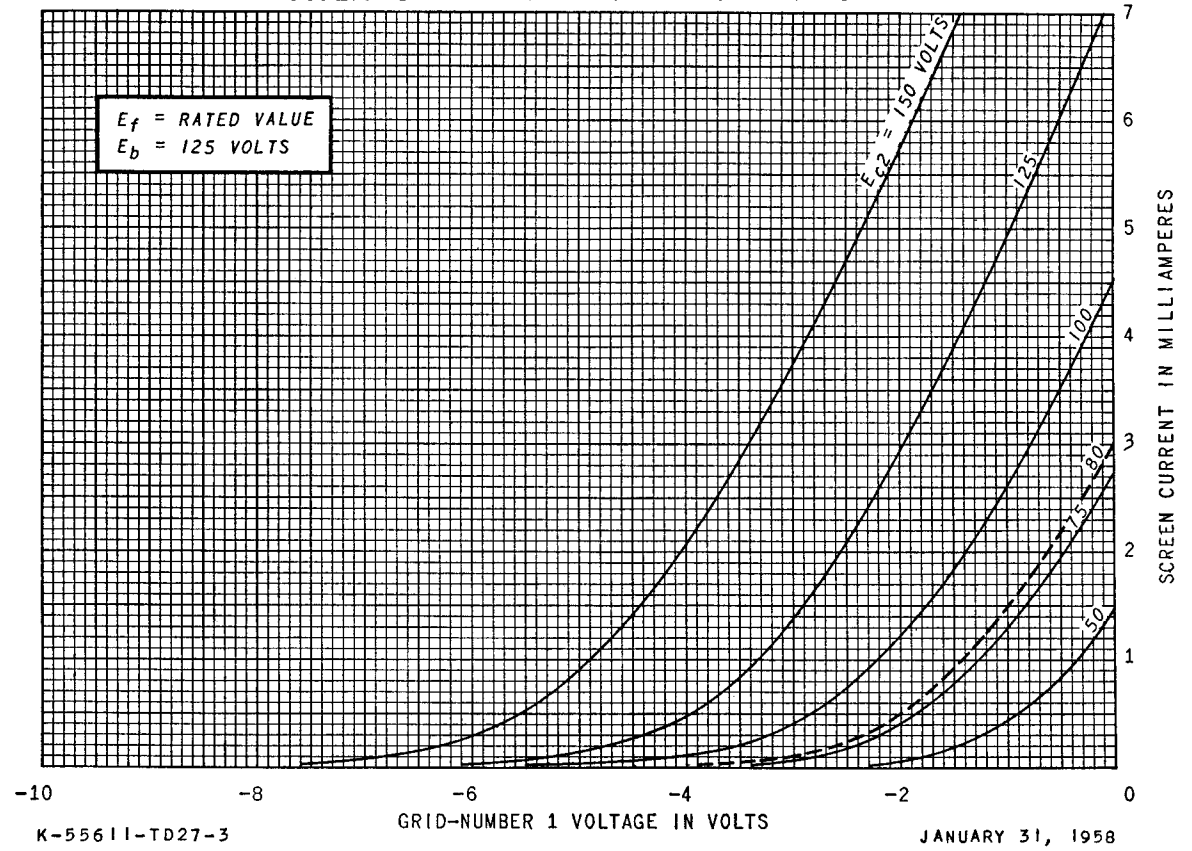
## AVERAGE TRANSFER CHARACTERISTICS

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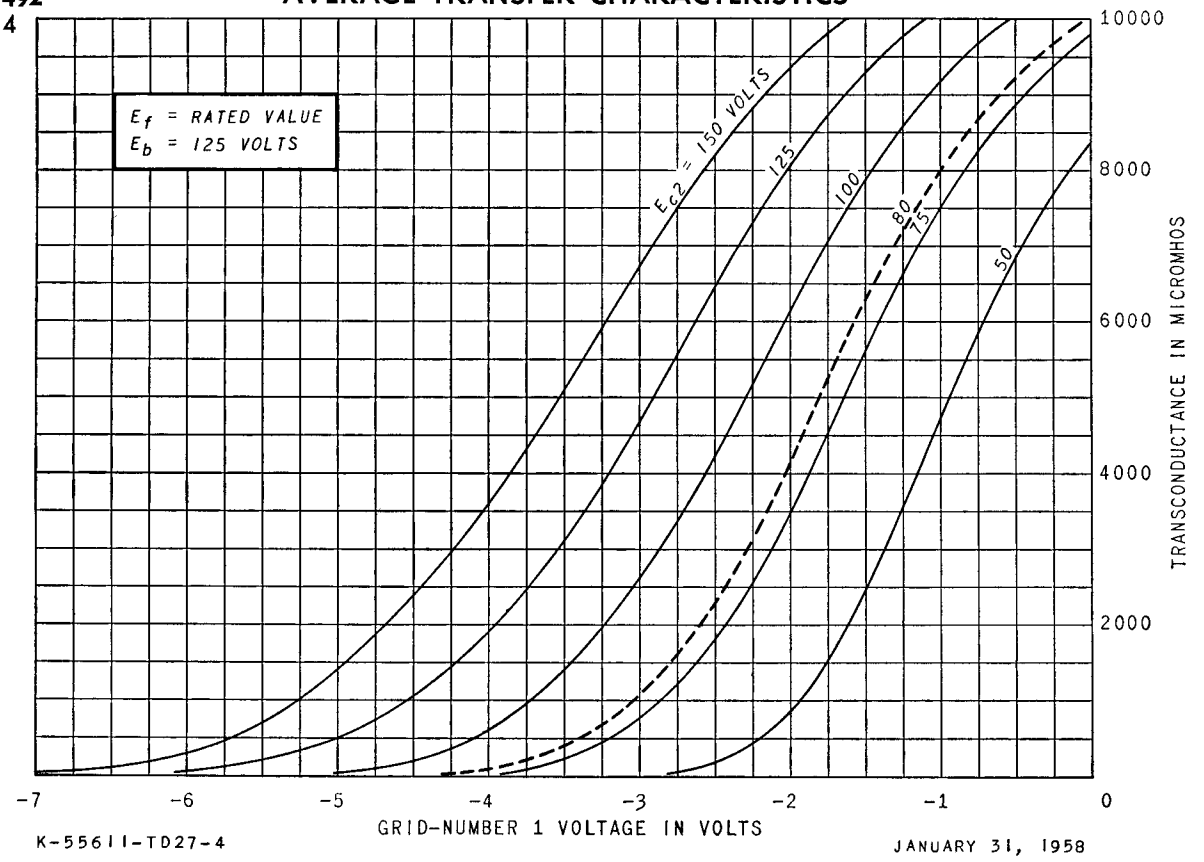
## AVERAGE TRANSFER CHARACTERISTICS

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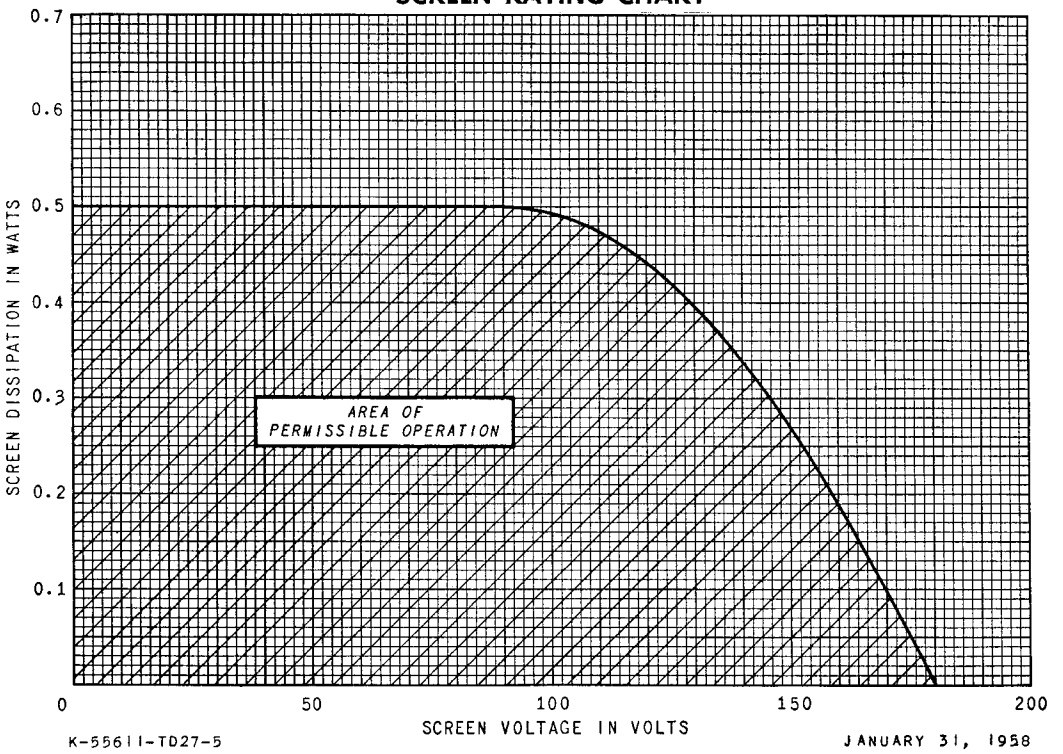
## SCREEN RATING CHART

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**ELECTRONIC COMPONENTS DIVISION**

**GENERAL ELECTRIC**