

DIODE-PENTODE

DESCRIPTION AND RATING

The 1DN5 is a miniature, filamentary, single-diode, remote-cutoff pentode intended for use as a combined detector, audio-amplifier, and automatic volume-control tube in battery-operated receivers. As a result of its remote-cutoff characteristic, automatic-volume-control voltage may be applied to the pentode section of the 1DN5. By introducing AVC to the audio-amplifier stage, an improved over-all AVC response of the receiver can be achieved.

GENERAL

ELECTRICAL

Cathode—Coated Filament

Filament Voltage, DC.....1.4 Volts

Filament Current.....0.05 Amperes

Direct Interelectrode Capacitances*

Grid-Number 1 to Diode Plate, maximum.....0.04 μf

MECHANICAL

Mounting Position—Any

Envelope—T-5½, Glass

Base—E7-1, Miniature Button 7-Pin

MAXIMUM RATINGS

DESIGN-CENTER VALUES

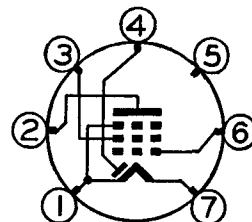
Plate Voltage.....	90	Volts
Screen Voltage.....	90	Volts
Positive DC Grid-Number 1 Voltage.....	0	Volts
Negative DC Grid-Number 1 Voltage.....	50	Volts
DC Cathode Current.....	3.0	Milliamperes
Diode Current for Continuous Operation.....	0.25	Milliamperes

CHARACTERISTICS AND TYPICAL OPERATION

CLASS A₁ AMPLIFIER

Plate Voltage.....	67.5	Volts
Screen Voltage.....	67.5	Volts
Grid-Number 1 Voltage.....	0	Volts
Plate Resistance, approximate.....	0.6	Megohms
Transconductance.....	.630	Micromhos
Plate Current.....	2.1	Milliamperes
Screen Current.....	0.55	Milliamperes
Grid-Number 1 Voltage, approximate		
$G_m = 10$ Micromhos.....	—11.5	Volts
Average Diode Current		
With 10 Volts DC Applied.....	1.0	Milliamperes

BASING DIAGRAM

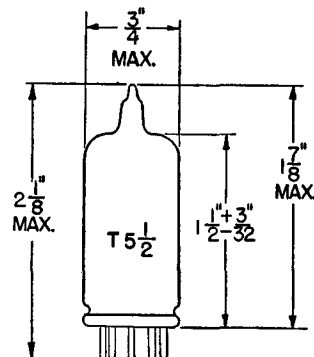


EIA 6BW

TERMINAL CONNECTIONS

- Pin 1—Negative Filament and Grid Number 3 (Suppressor)
- Pin 2—Plate
- Pin 3—Grid Number 2 (Screen)
- Pin 4—Diode Plate†
- Pin 5—No Connection
- Pin 6—Grid Number 1
- Pin 7—Positive Filament

PHYSICAL DIMENSIONS



EIA 5-2

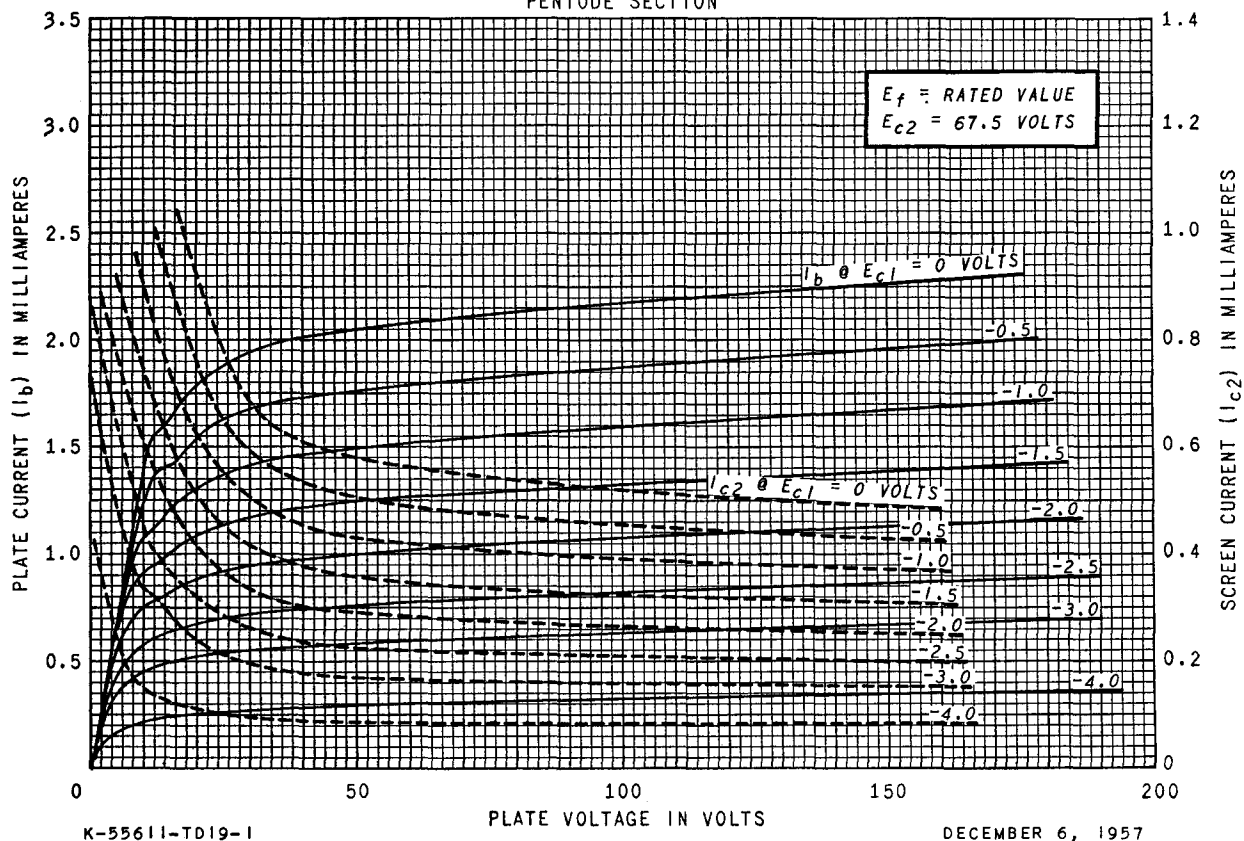
* Without external shield.

† The diode is located at the negative end of the filament.

Note: All voltages are referred to the negative terminal of the filament.

AVERAGE PLATE CHARACTERISTICS

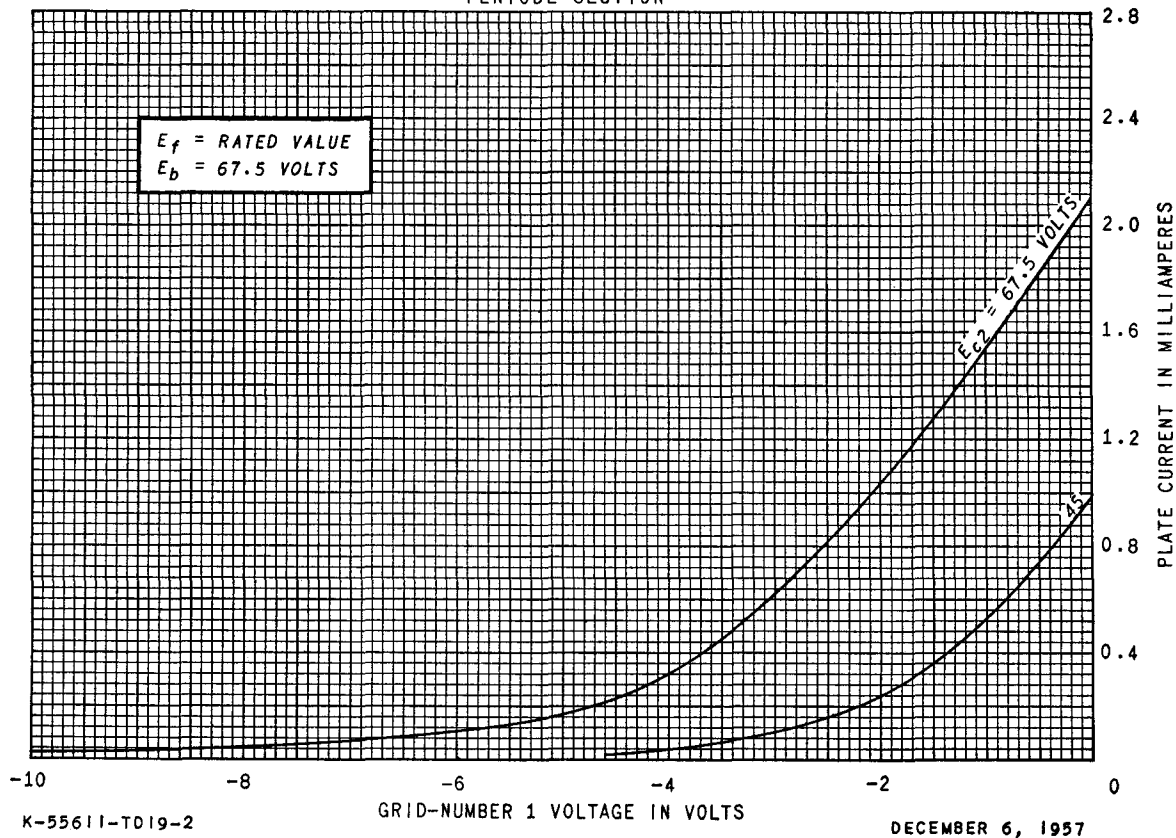
PENTODE SECTION



AVERAGE TRANSFER CHARACTERISTICS

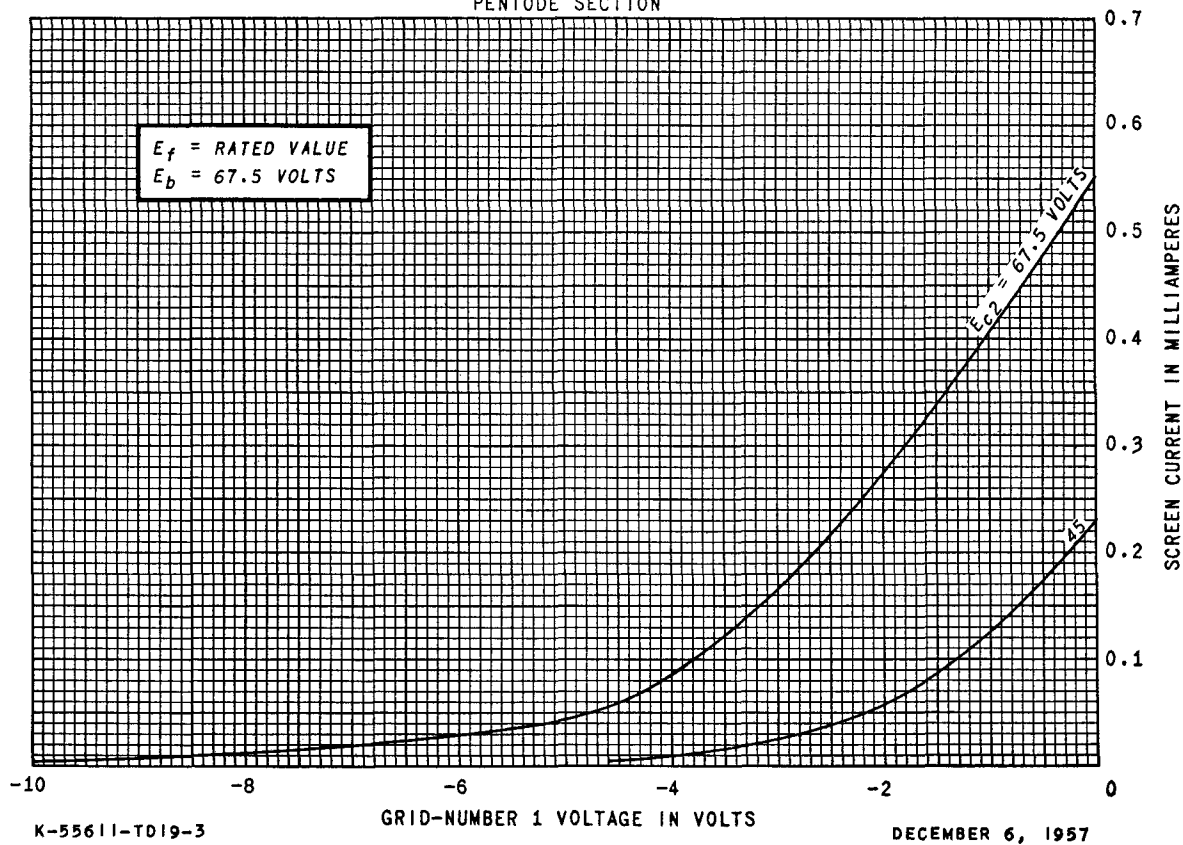
PENTODE SECTION

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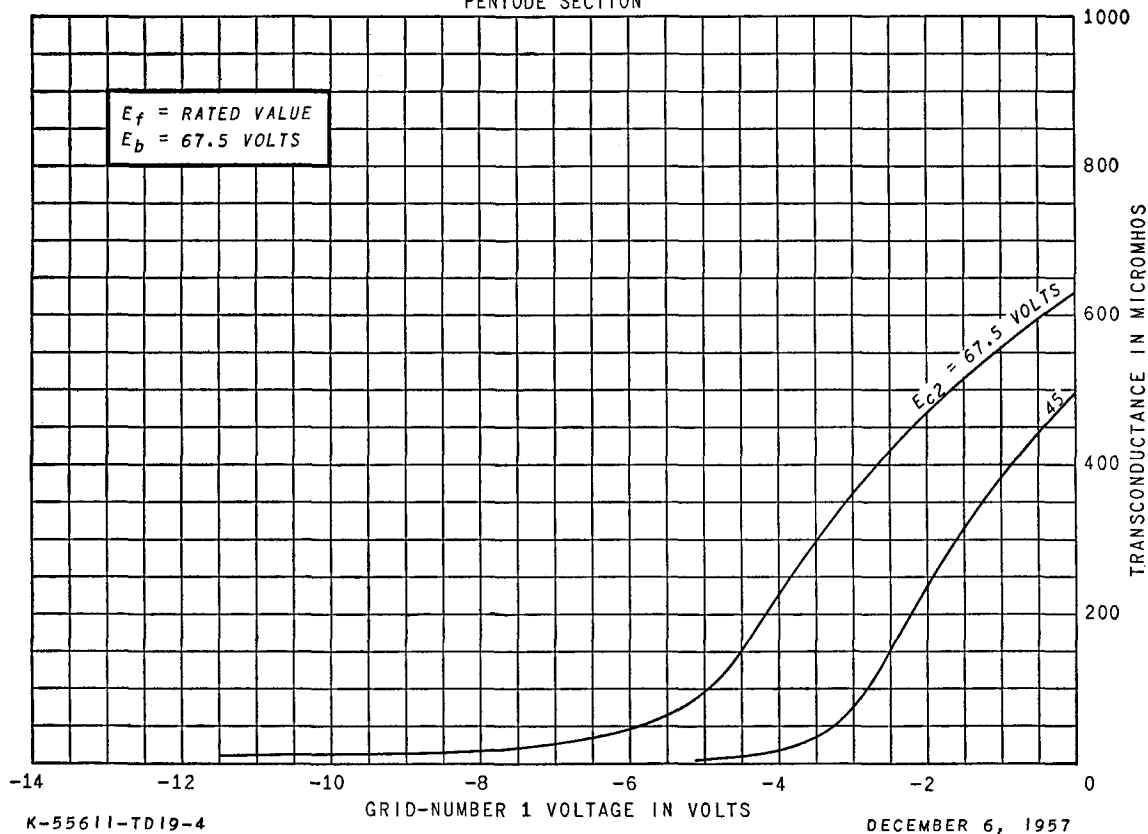
AVERAGE TRANSFER CHARACTERISTICS

PENTODE SECTION



AVERAGE TRANSFER CHARACTERISTICS

PENTODE SECTION



ELECTRONIC COMPONENTS DIVISION

GENERAL  ELECTRIC

Schenectady 5, N. Y.