Electronic TUBES

1DN5

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	μμf

MECHANICAL

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

MAXIMUM RATINGS

DESIGN-CENTER VALUES

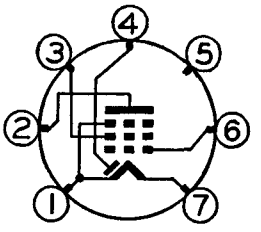
Plate Voltage	90	Volts
Screen Voltage	90	Volts
Positive DC Grid-Number 1 Voltage	0	Volts
Negative DC Grid-Number 1 Voltage	50	Volts
DC Cathode Current	3.0	Milliamperes
Diode Current for Continuous Operation	0.25	Milliamperes

CHARACTERISTICS AND TYPICAL OPERATION

CLASS A_1 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 Gm = 10 Micromhos	−11.5	Volts
Average Diode Current With 10 Volts DC Applied	1.0	Milliamperes

BASING DIAGRAM

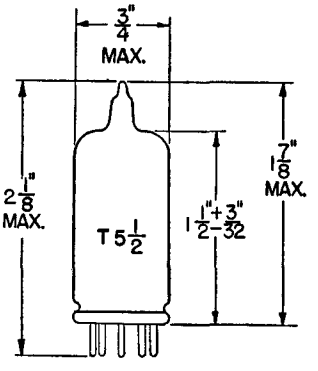


EIA 6BW

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



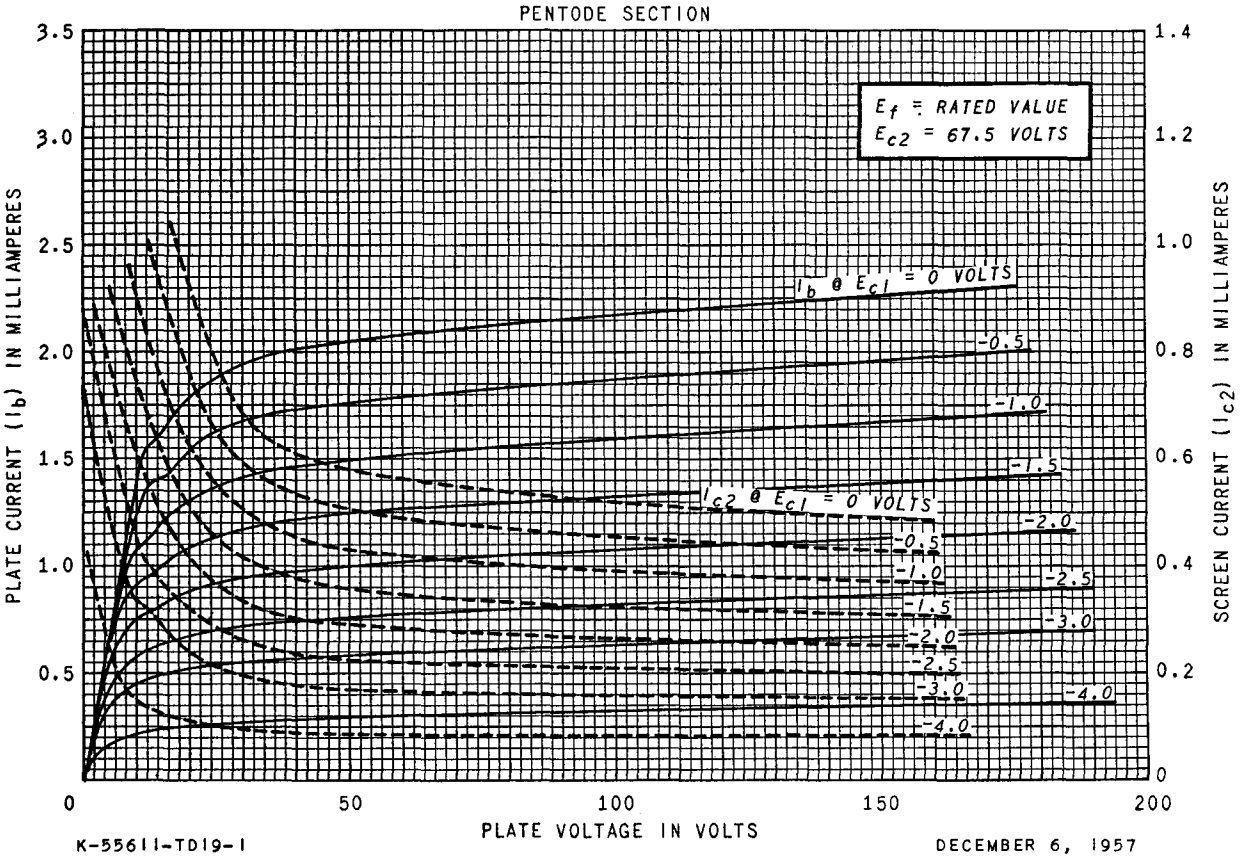
EIA 5-2

GENERAL ELECTRIC

* 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

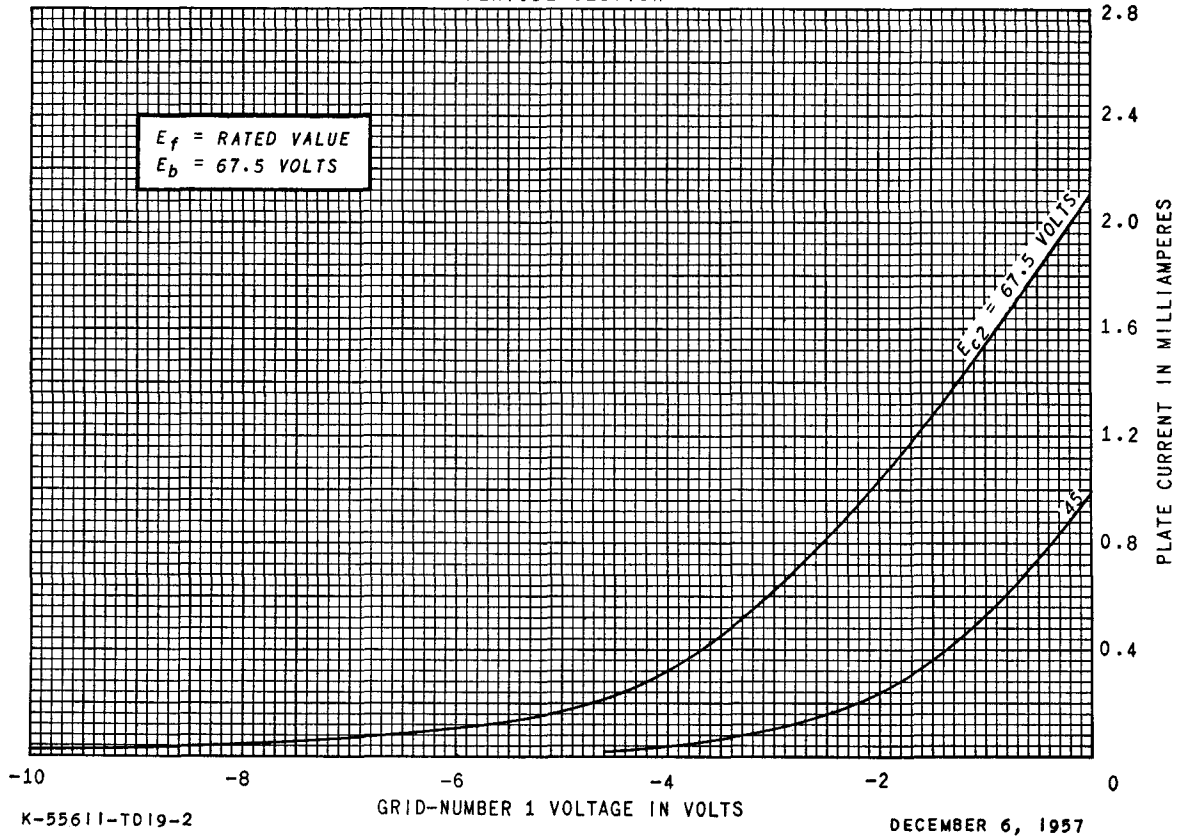
PENTODE SECTION



K-55611-TD19-1 DECEMBER 6, 1957

AVERAGE TRANSFER CHARACTERISTICS

PENTODE SECTION

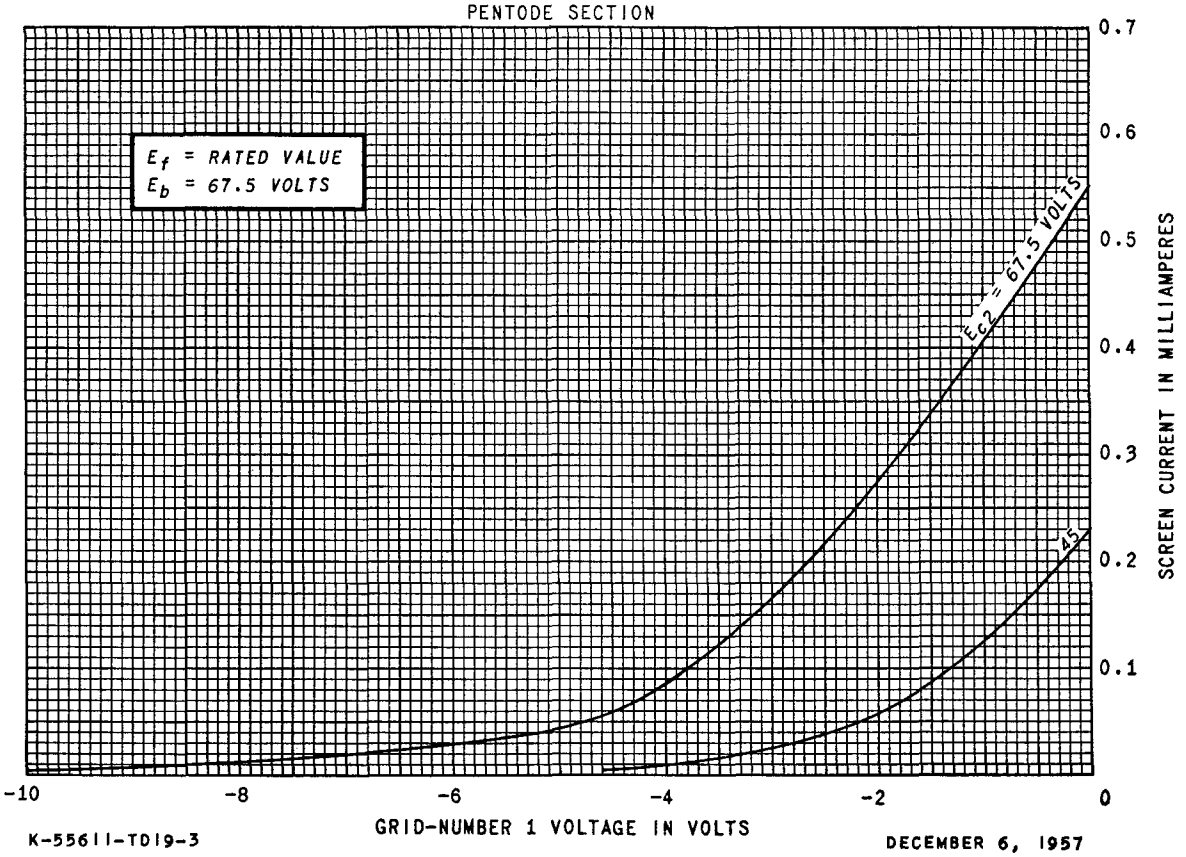


K-55611-TD19-2

DECEMBER 6, 1957

AVERAGE TRANSFER CHARACTERISTICS

PENTODE SECTION

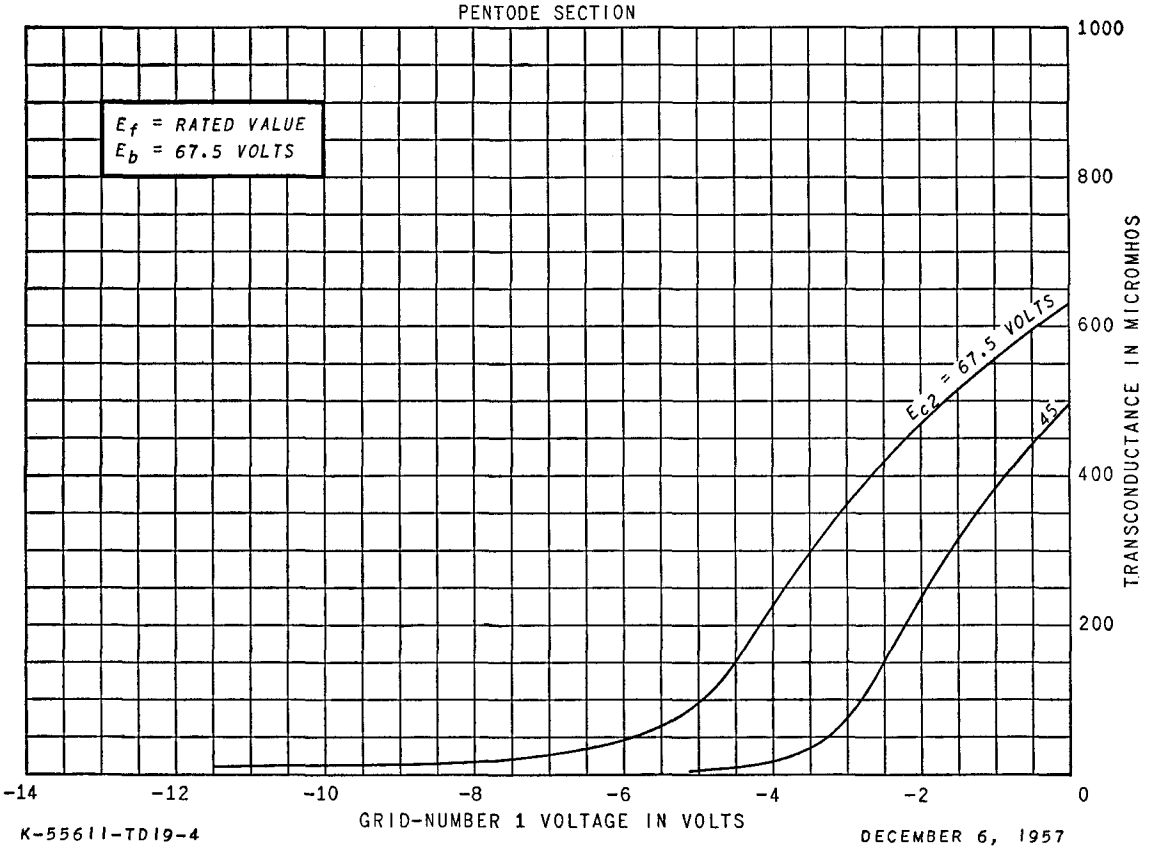


K-55611-TD19-3

DECEMBER 6, 1957

AVERAGE TRANSFER CHARACTERISTICS

PENTODE SECTION



K-55611-TD19-4

DECEMBER 6, 1957

ELECTRONIC COMPONENTS DIVISION
GENERAL ELECTRIC
Schenectady 5, N. Y.

PRINTED IN U.S.A.