Electronic TUBES

18FW6

PENTODE

DESCRIPTION AND RATING

The 18FW6 is a miniature, semi-remote-cutoff pentode designed for RF and IF amplifier service in line-operated radio receivers having 100-milliampere, series-connected heaters.

GENERAL

ELECTRICAL

Cathode—Coated Unipotential

Heater Voltage, AC or DC	18±10%	Volts
Heater Current	0.1	Amperes
Direct Interelectrode Capacitances*		
Grid-Number 1 to Plate: (g1 to p)	0.0035	μμf
Input: G1 to (H+K+G2+G3)	5.5	μμf
Output: P to (H+K+G2+G3)	5.0	μμf

MECHANICAL

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

MAXIMUM RATINGS

DESIGN-MAXIMUM VALUES

Plate Voltage	150	Volts
Screen-Supply Voltage	150	Volts
Screen Voltage—See Screen Rating Chart		
Plate Dissipation	2.5	Watts
Screen Dissipation	0.6	Watts
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.

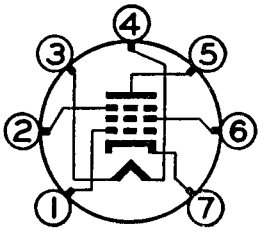
These values are chosen by the tube manufacturer to provide acceptable serviceability of the tube, taking responsibility for the effects of changes in operating conditions due to variations in the characteristics of the tube under consideration.

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, variation in characteristics of all other tubes in the equipment, equipment control adjustment, load variation, signal variation, and environmental conditions.

The tubes and arrangements disclosed herein may be covered by patents of General Electric Company or others. Neither the disclosure of any information herein nor the sale of tubes by General Electric Company conveys any license under patent claims covering combinations of tubes with other devices or elements. In the absence of an express written agreement to the contrary, General Electric Company assumes no liability for patent infringement arising out of any use of the tubes with other devices or elements by any purchaser of tubes or others.

GENERAL ELECTRIC

BASING DIAGRAM

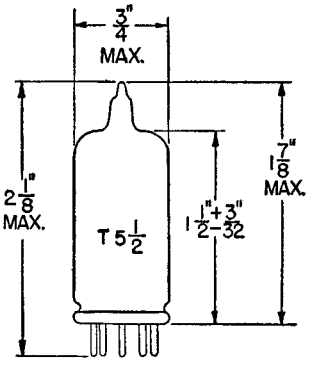


EIA 7CC

TERMINAL CONNECTIONS

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

PHYSICAL DIMENSIONS



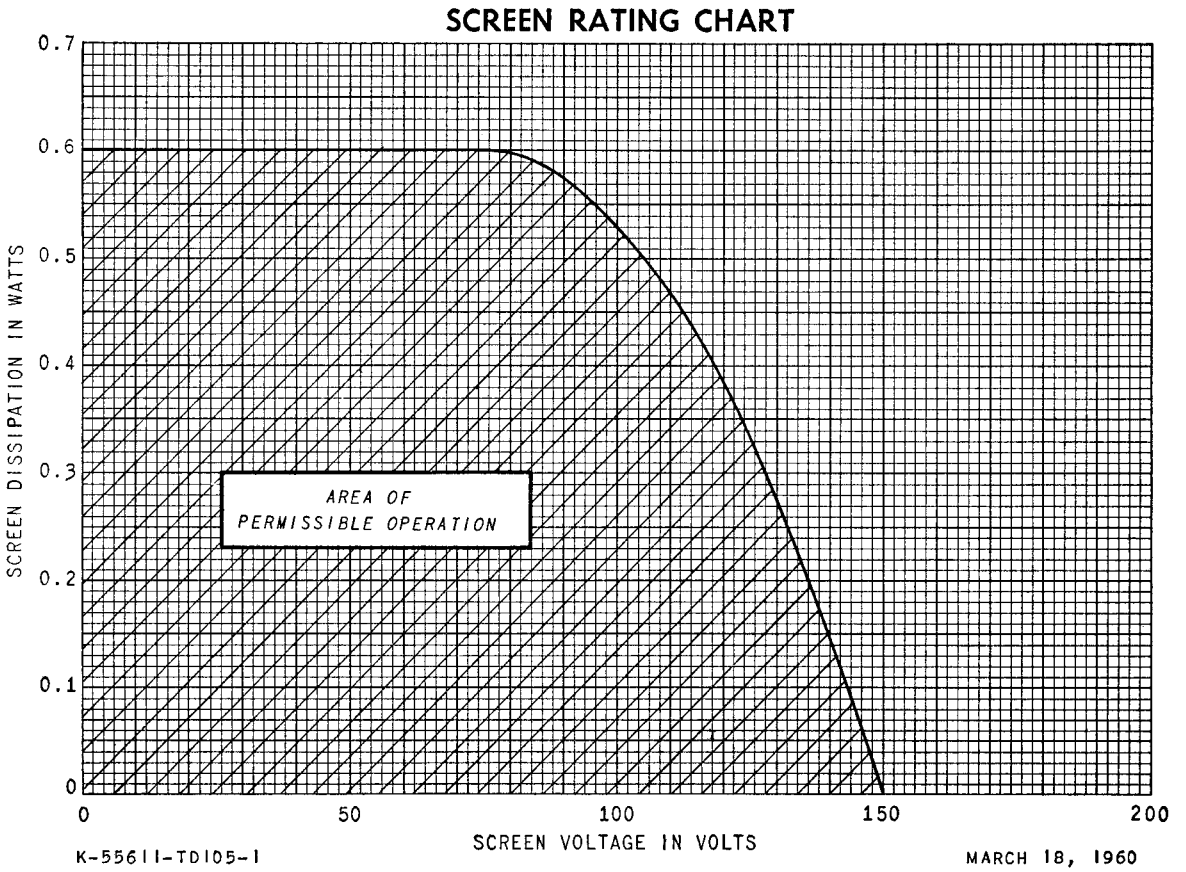
EIA, 5-2

CHARACTERISTICS AND TYPICAL OPERATION

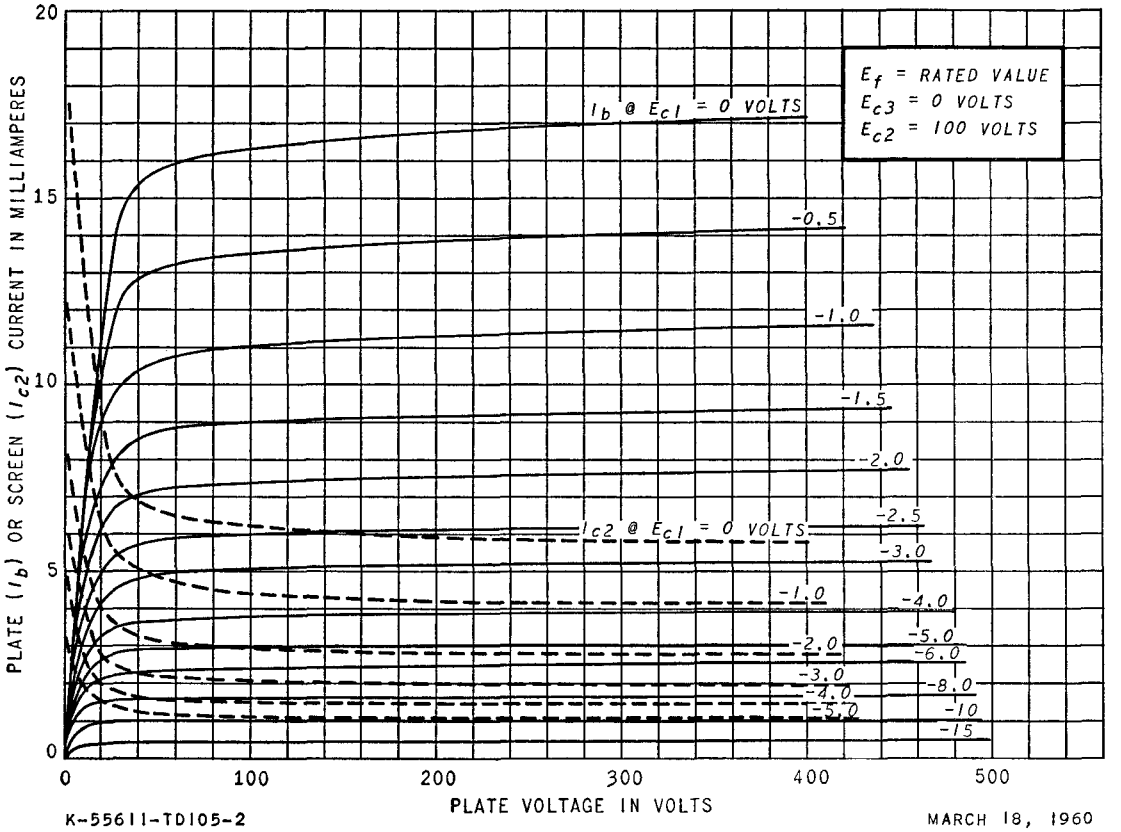
AVERAGE CHARACTERISTICS

Plate Voltage	100	Volts
Suppressor, Connected to Cathode at socket		
Screen Voltage	100	Volts
Cathode-Bias Resistor	68	Ohms
Plate Resistance, approximate	0.25	Megohms
Transconductance	4100	Micromhos
Plate Current	9.0	Milliamperes
Screen Current	3.9	Milliamperes
Grid-Number 1 Voltage, approximate Gm = 25 Micromhos	−20	Volts

* With external shield (EIA 316) connected to cathode.



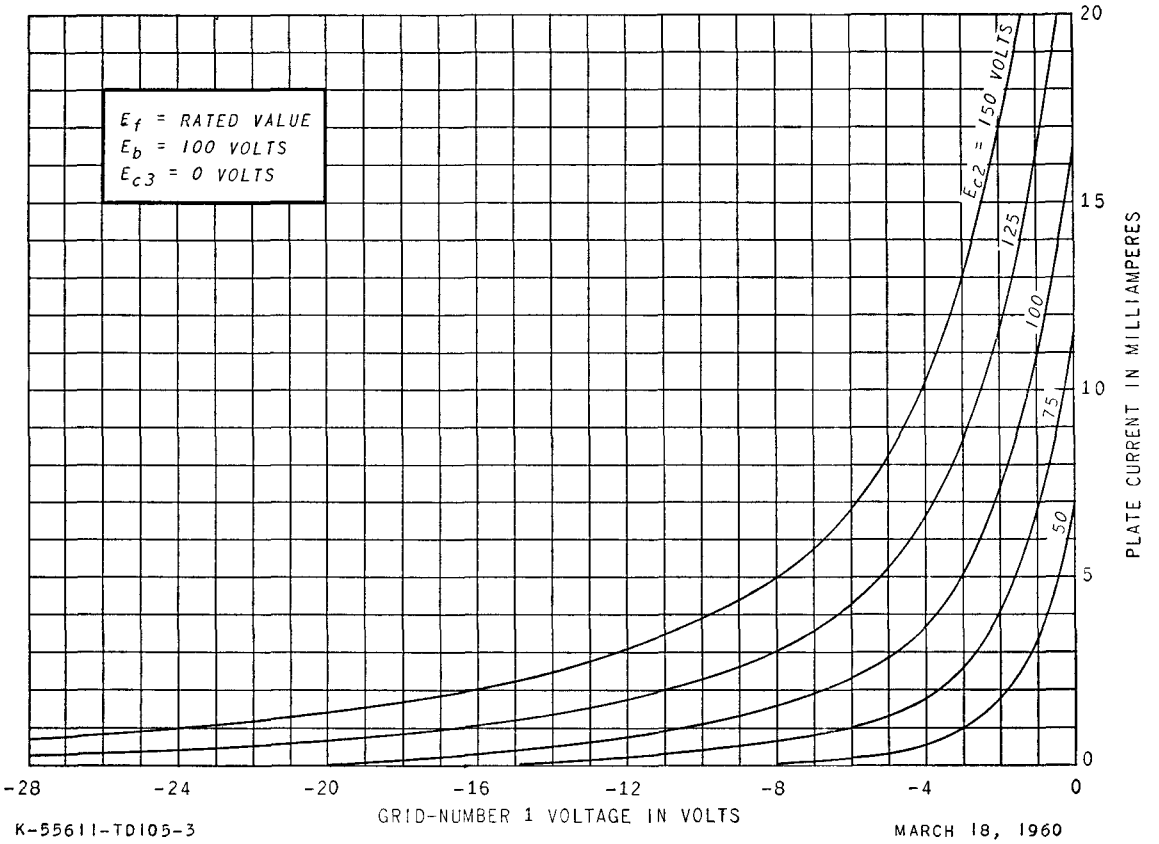
AVERAGE PLATE CHARACTERISTICS



K-55611-TD105-2

MARCH 18, 1960

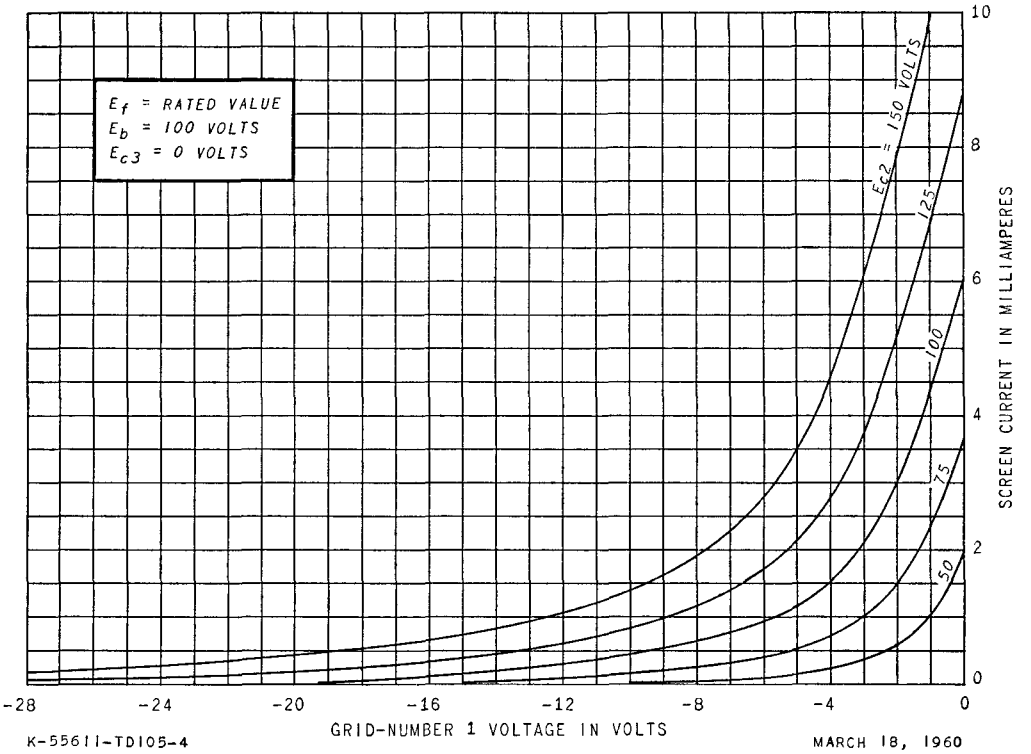
AVERAGE TRANSFER CHARACTERISTICS



K-55611-TD105-3

MARCH 18, 1960

AVERAGE TRANSFER CHARACTERISTICS



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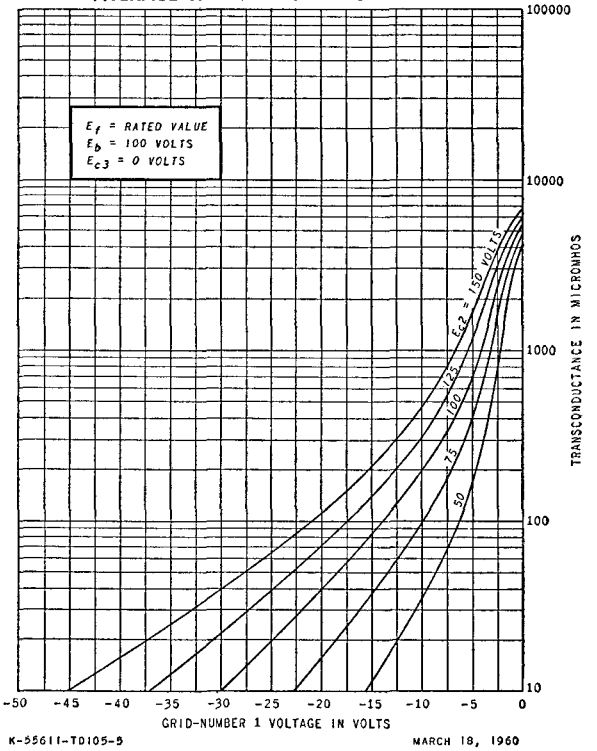

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GENERAL ELECTRIC

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