Electronic TUBES

6EW6
PENTODE

DESCRIPTION AND RATING

The 6EW6 is a miniature, sharp-cutoff pentode designed for intermediate-frequency amplifier service in television receivers. Features of the tube include high transconductance and separate base-pin terminals for the cathode and suppressor.

GENERAL

ELECTRICAL

Cathode—Coated Unipotential

Heater Voltage, AC or DC	6.3 ± 10%		Volts
Heater Current	0.4		Amperes
Direct Interelectrode Capacitances	With Shield*	Without Shield	
Grid-Number 1 to Plate, maximum	0.03	0.04	μμf
Input	10.0	10.0	μμf
Output	3.4	2.4	μμf

MECHANICAL

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

MAXIMUM RATINGS

DESIGN-MAXIMUM VALUES

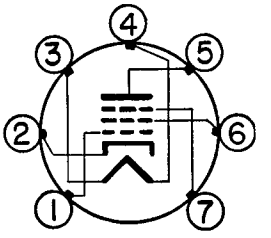
Plate Voltage	330	Volts
Screen-Supply Voltage	330	Volts
Screen Voltage—See Screen Rating Chart		
Positive DC Grid-Number 1 Voltage	0	Volts
Plate Dissipation	3.1	Watts
Screen Dissipation	0.65	Watts
Heater-Cathode Voltage		
Heater Positive with Respect to Cathode		
DC Component	100	Volts
Total DC and Peak	200	Volts
Heater Negative with Respect to Cathode		
Total DC and Peak	200	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

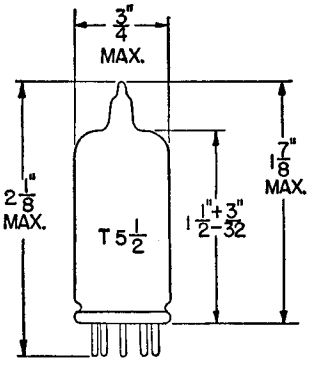


EIA 7CM

TERMINAL CONNECTIONS

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

PHYSICAL DIMENSIONS



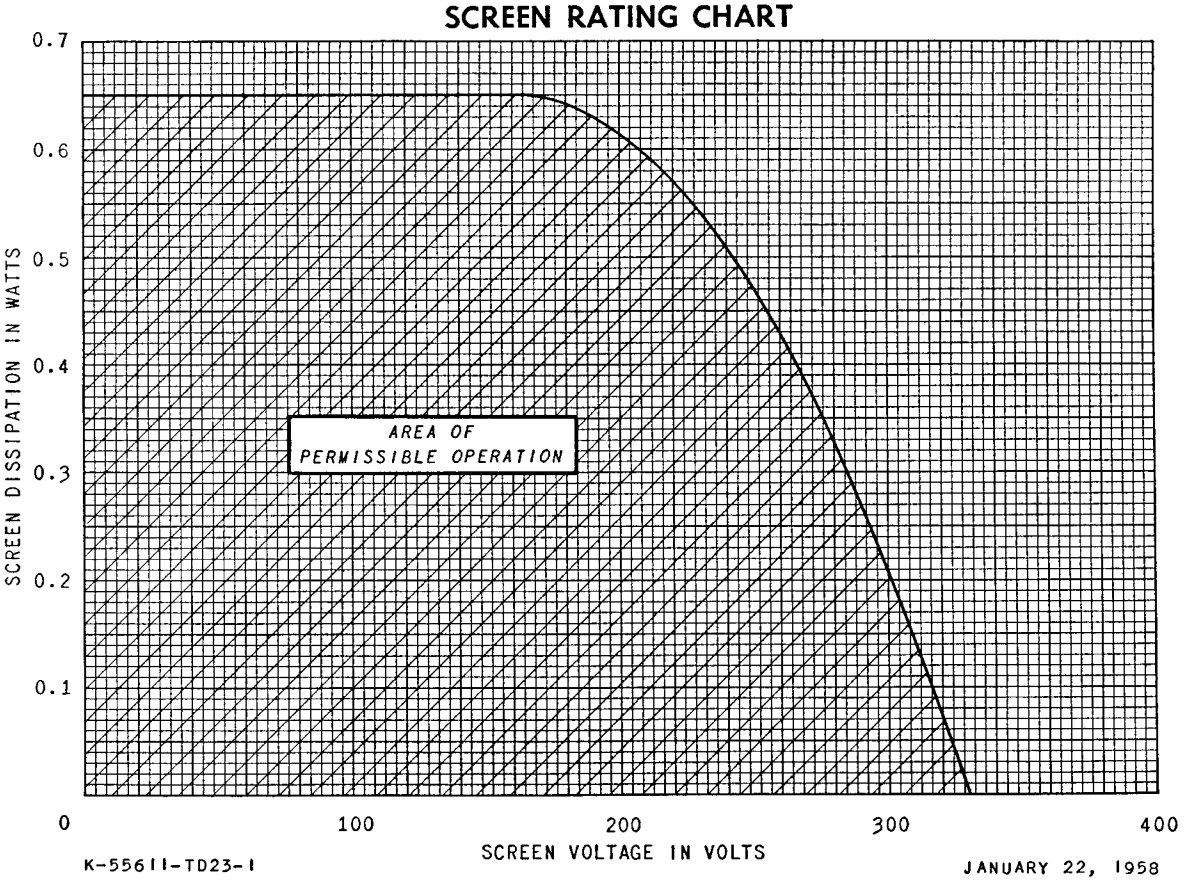
EIA 5-2

CHARACTERISTICS AND TYPICAL OPERATION

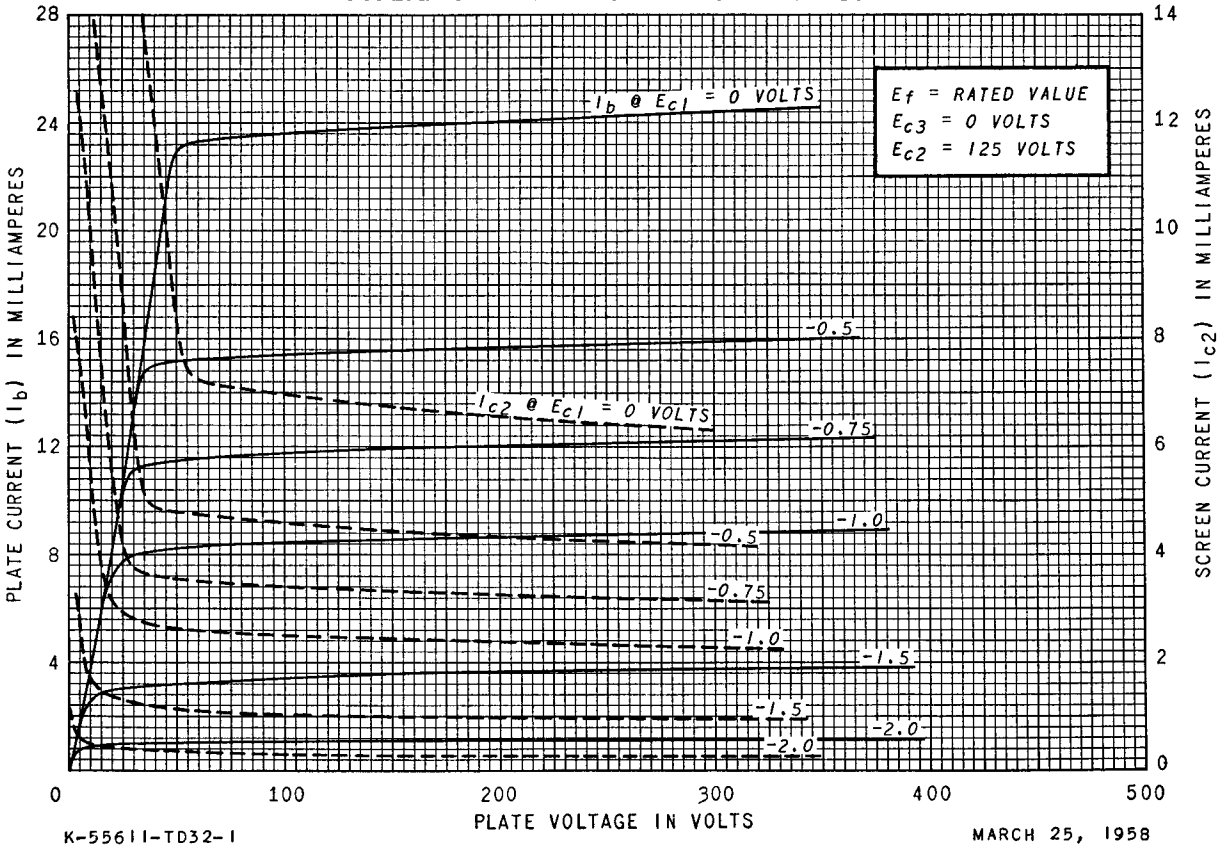
CLASS A_1 AMPLIFIER

Plate Voltage	125	Volts
Suppressor, Connected to Cathode at Socket		
Screen Voltage	125	Volts
Cathode-Bias Resistor	56	Ohms
Plate Resistance, approximate	0.2	Megohms
Transconductance	14000	Micromhos
Plate Current	11	Milliamperes
Screen Current	3.2	Milliamperes
Grid-Number 1 Voltage, approximate		
Ib = 20 Microamperes	−3.5	Volts

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



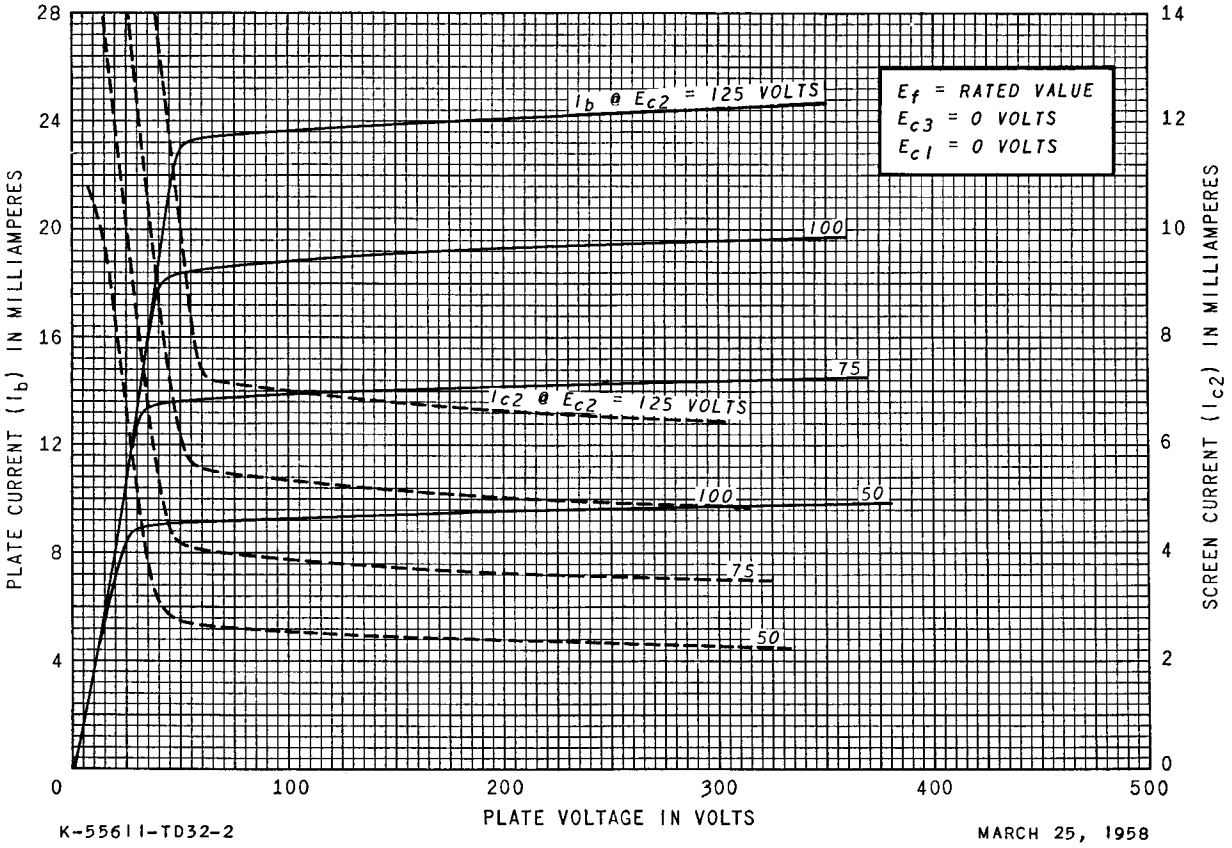
AVERAGE PLATE CHARACTERISTICS



K-55611-TD32-1

MARCH 25, 1958

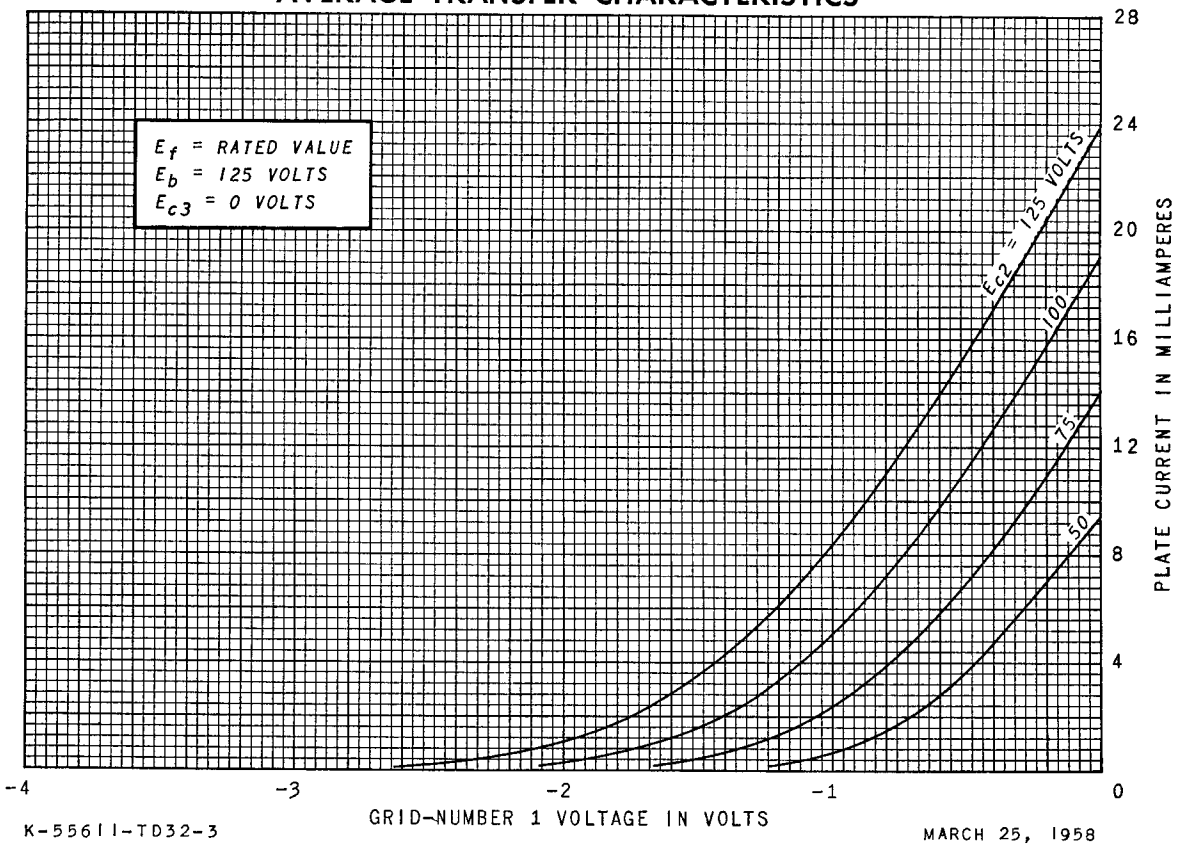
AVERAGE PLATE CHARACTERISTICS



K-55611-TD32-2

MARCH 25, 1958

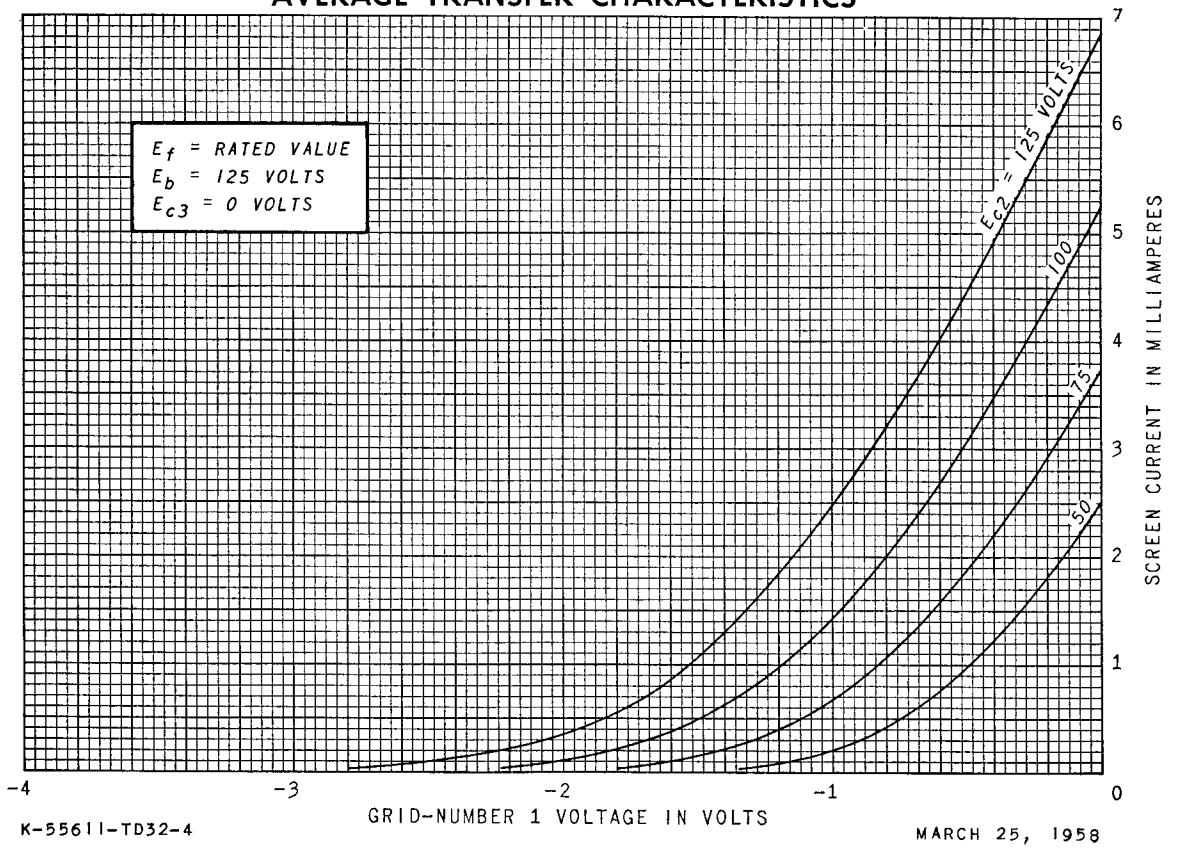
AVERAGE TRANSFER CHARACTERISTICS



K-55611-TD32-3

MARCH 25, 1958

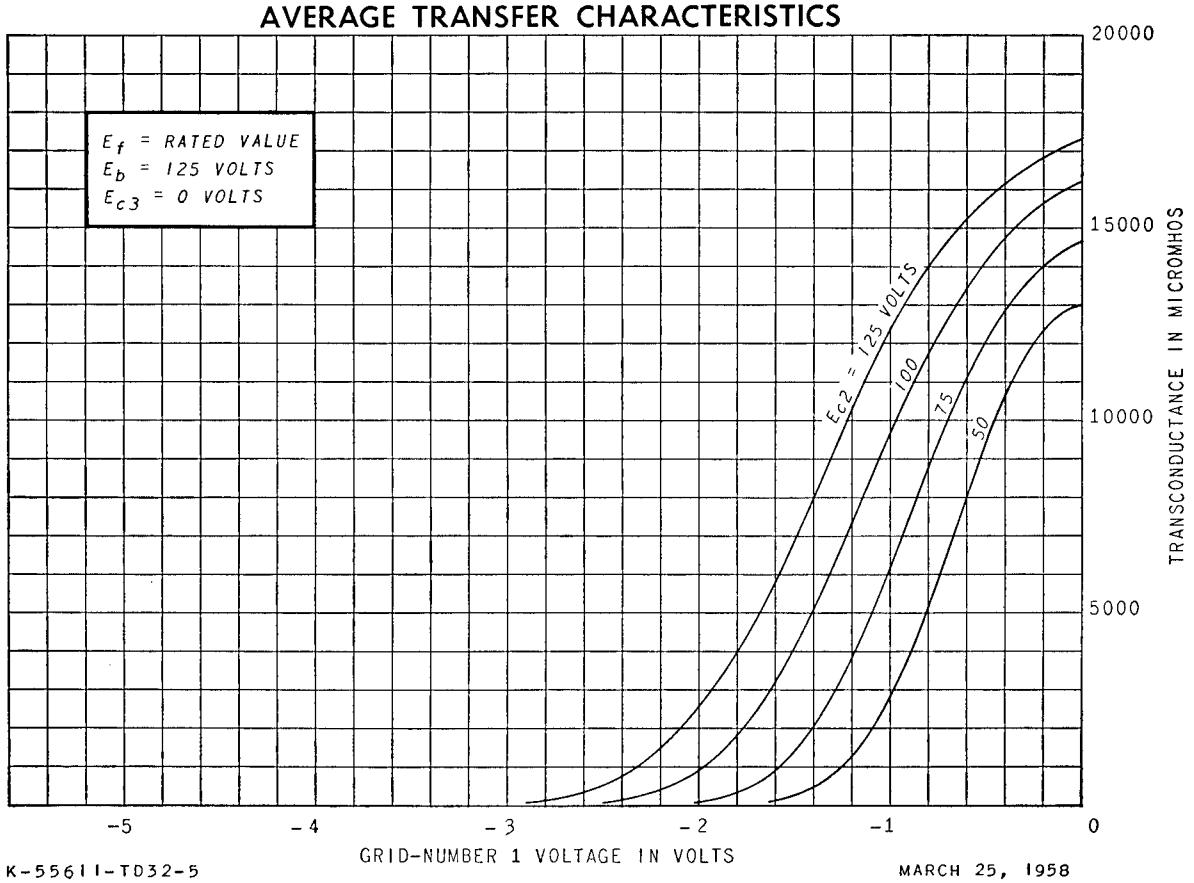
AVERAGE TRANSFER CHARACTERISTICS



K-55611-TD32-4

MARCH 25, 1958

AVERAGE TRANSFER CHARACTERISTICS



K-55611-TD32-5

MARCH 25, 1958