

BEAM PENTODE

FOR AF POWER AMPLIFIER APPLICATIONS

DESCRIPTION AND RATING

The 6CU5 is a miniature beam-power pentode primarily designed for use in the audio-frequency power-output stage of radio receivers. The tube features high power sensitivity and high efficiency at relatively low plate and screen voltages.

GENERAL

ELECTRICAL

Cathode—Coated Unipotential

Heater Voltage, AC or DC	6.3	Volts
Heater Current	1.2	Amperes
Direct Interelectrode Capacitances*		
Grid-Number 1 to Plate	0.6	$\mu\mu\text{f}$
Input	13	$\mu\mu\text{f}$
Output	8.5	$\mu\mu\text{f}$

MECHANICAL

Mounting Position—Any

Envelope—T-5½, Glass

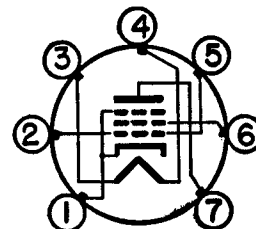
Base—E7-1, Miniature Button 7-Pin

MAXIMUM RATINGS

DESIGN-CENTER VALUES

Plate Voltage	135	Volts
Screen Voltage	117	Volts
Positive DC Grid-Number 1 Voltage	0	Volts
Plate Dissipation	6.0	Watts
Screen Dissipation	1.25	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
Grid-Number 1 Circuit Resistance		
With Fixed Bias	0.1	Megohms
With Cathode Bias	0.5	Megohms
Bulb Temperature at Hottest Point	220	C

BASING DIAGRAM

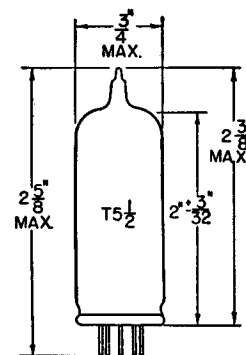


EIA 7CV

TERMINAL CONNECTIONS

- Pin 1—Cathode and Beam Plates
- Pin 2—Grid Number 1
- Pin 3—Heater
- Pin 4—Heater
- Pin 5—Grid Number 1
- Pin 6—Grid Number 2 (Screen)
- Pin 7—Plate

PHYSICAL DIMENSIONS



EIA 5-3

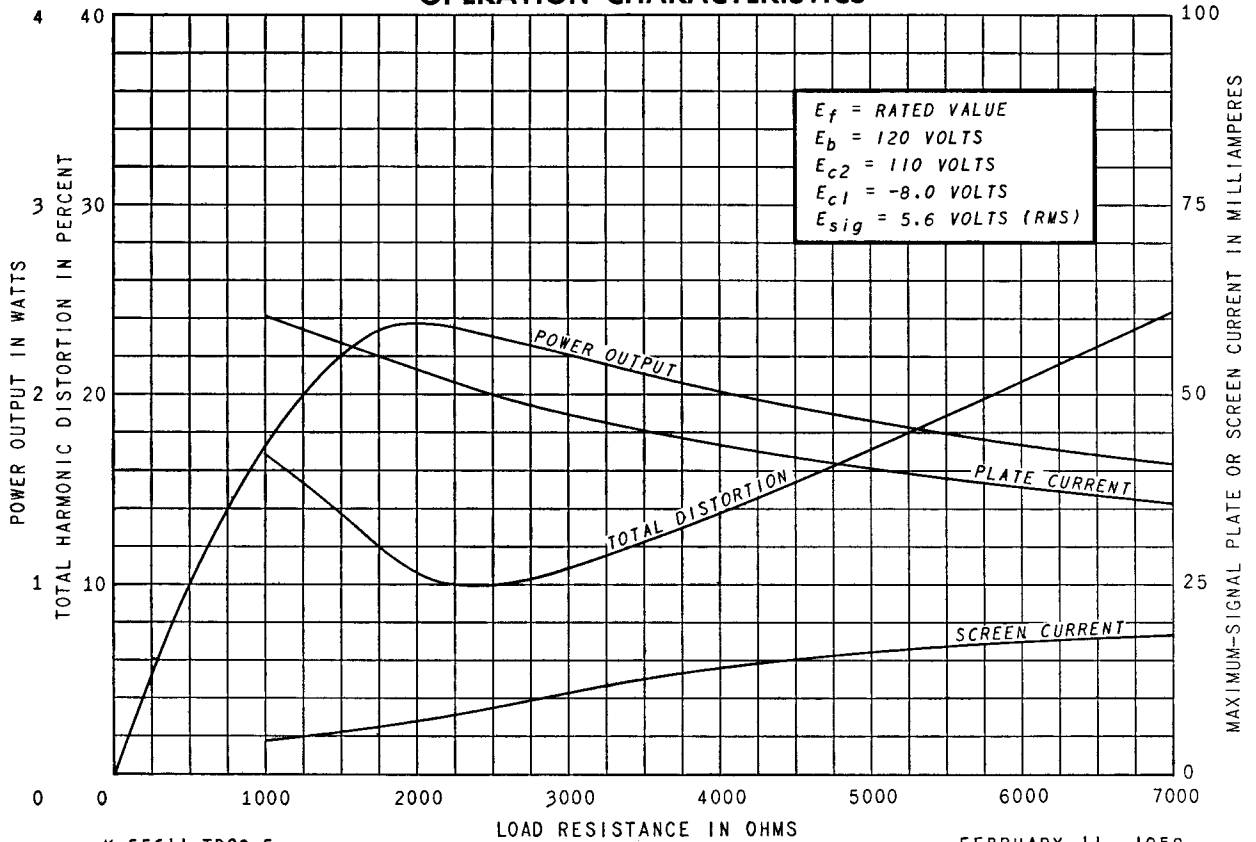
CHARACTERISTICS AND TYPICAL OPERATION

CLASS A₁ AMPLIFIER

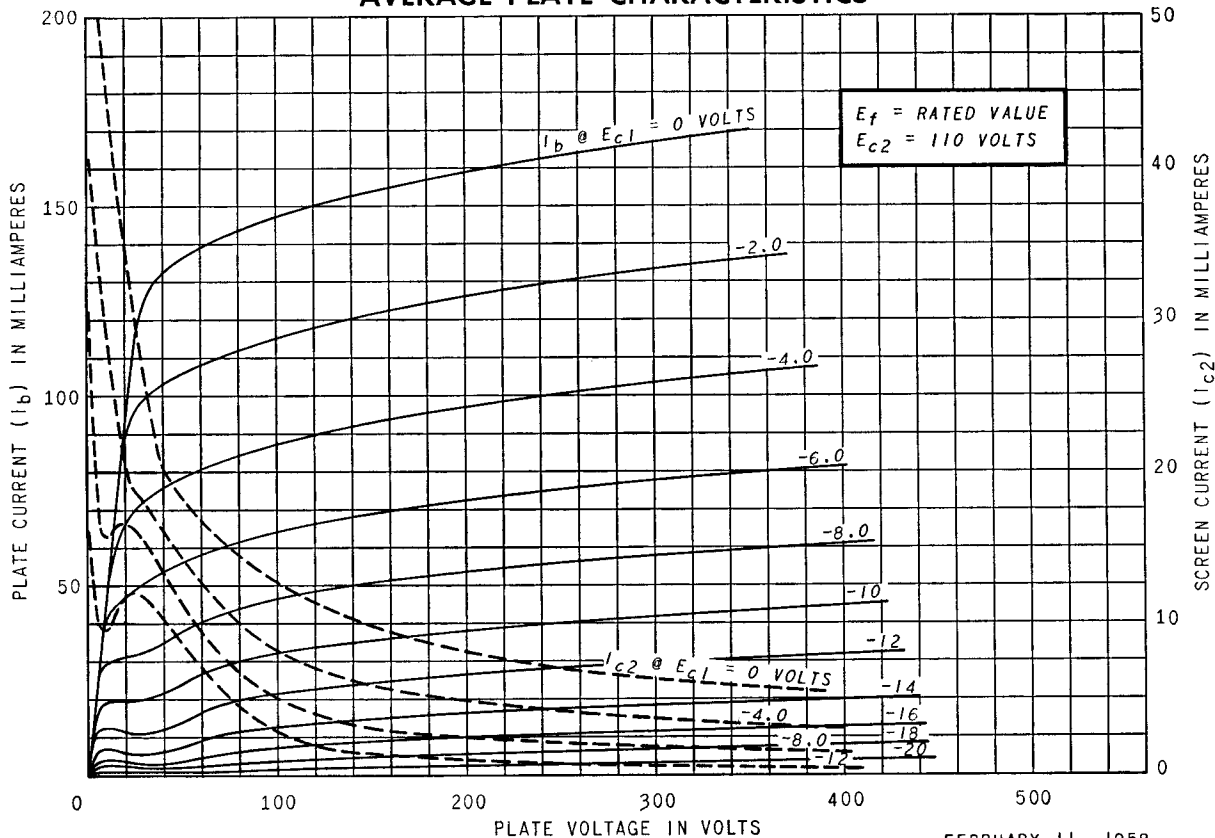
Plate Voltage	120	Volts
Screen Voltage	110	Volts
Grid-Number 1 Voltage	-8.0	Volts
Peak AF Grid-Number 1 Voltage	8.0	Volts
Plate Resistance, approximate	10000	Ohms
Transconductance	7500	Micromhos
Zero-Signal Plate Current49	Milliamperes
Maximum-Signal Plate Current50	Milliamperes
Zero-Signal Screen Current	4.0	Milliamperes
Maximum-Signal Screen Current	8.5	Milliamperes
Load Resistance	2500	Ohms
Total Harmonic Distortion, approximate	10	Percent
Maximum-Signal Power Output23	Watts

*Without external shield.

OPERATION CHARACTERISTICS



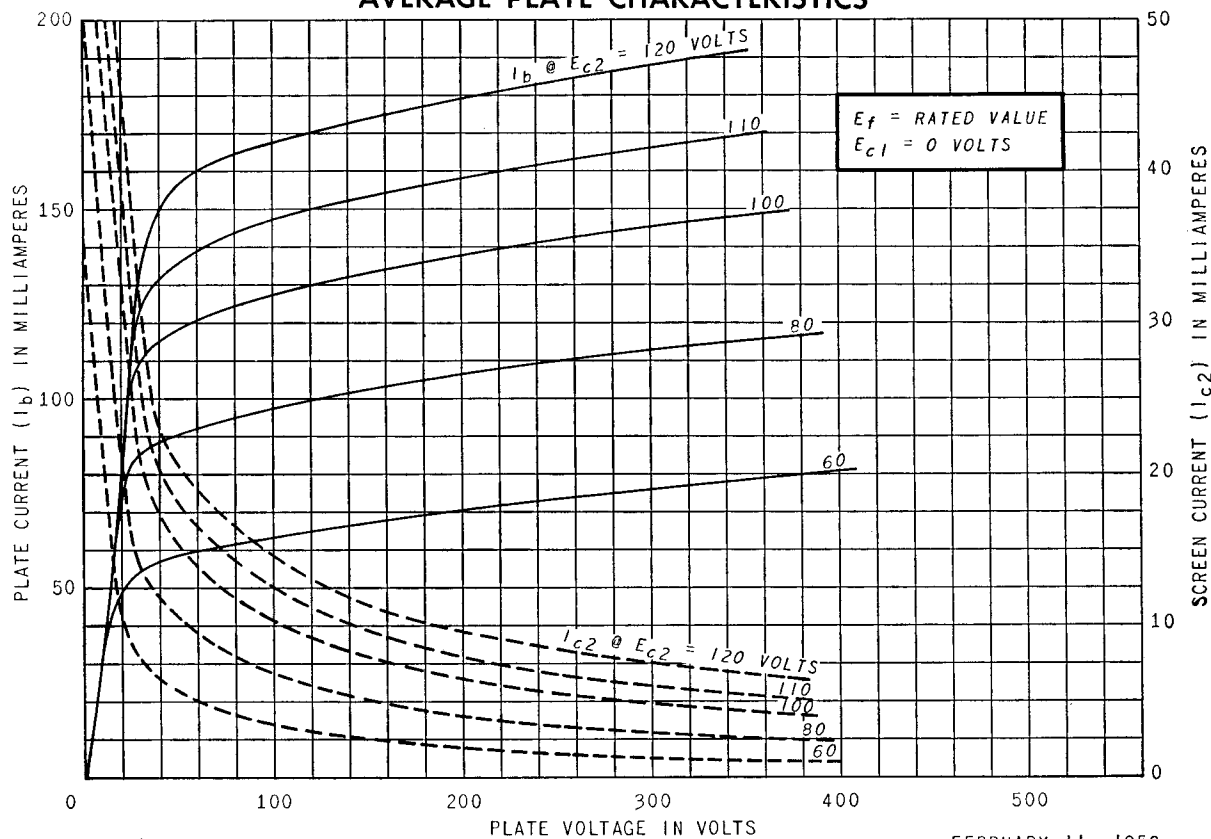
AVERAGE PLATE CHARACTERISTICS



K-55611-TD28-1

FEBRUARY 11, 1958

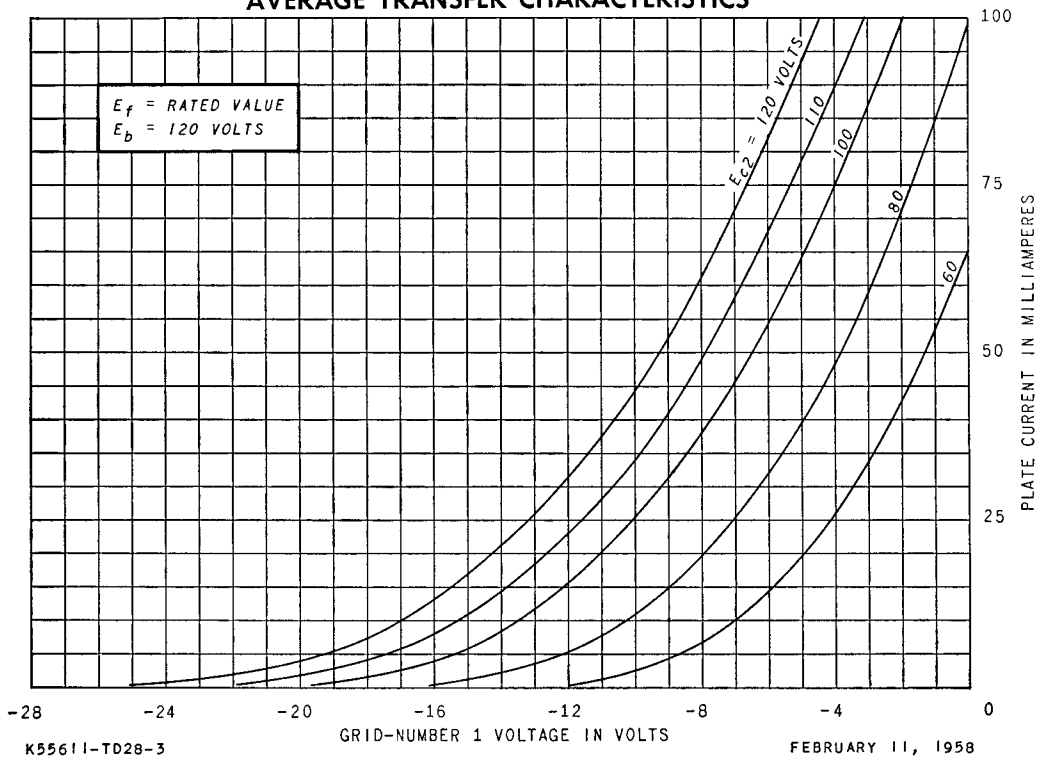
AVERAGE PLATE CHARACTERISTICS



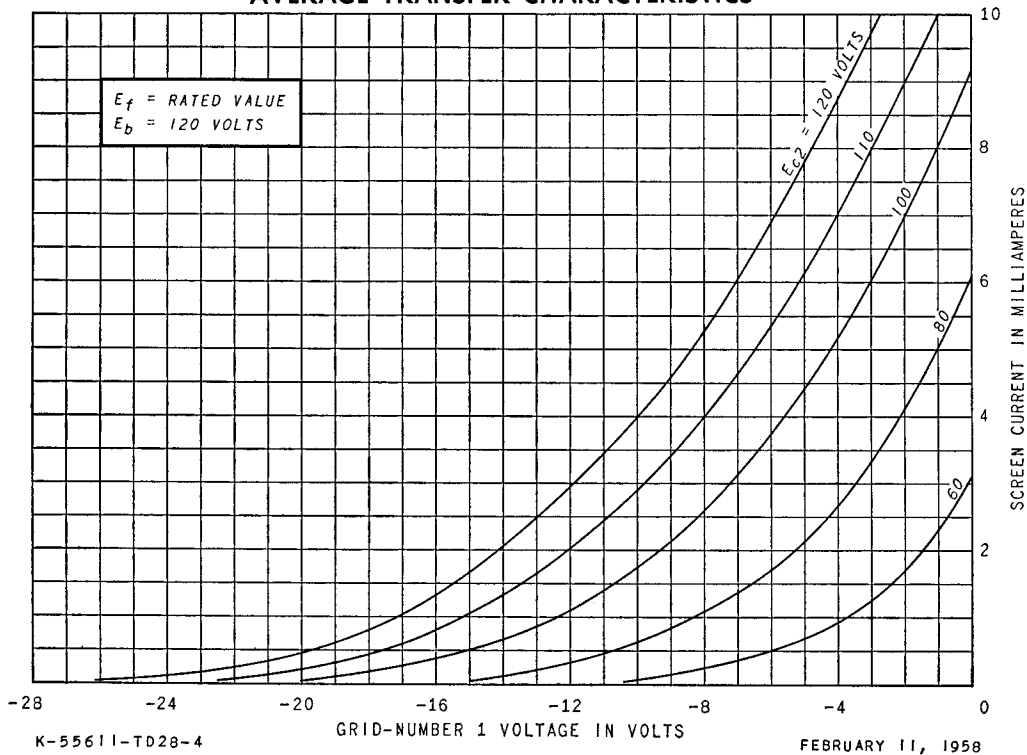
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AVERAGE TRANSFER CHARACTERISTICS



AVERAGE TRANSFER CHARACTERISTICS



ELECTRONIC COMPONENTS DIVISION



Schenectady 5, N. Y.