



# 6CU5

## 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

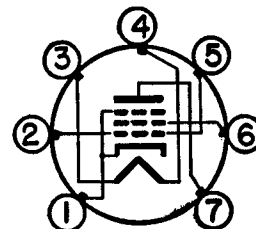
Mounting Position—Any  
Envelope—T-5½, Glass  
Base—E7-1, Miniature Button 7-Pin

#### 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

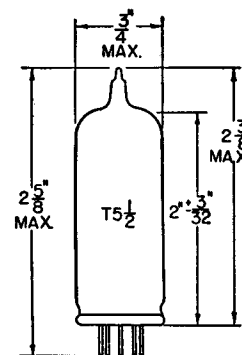


EIA 7CV

#### 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

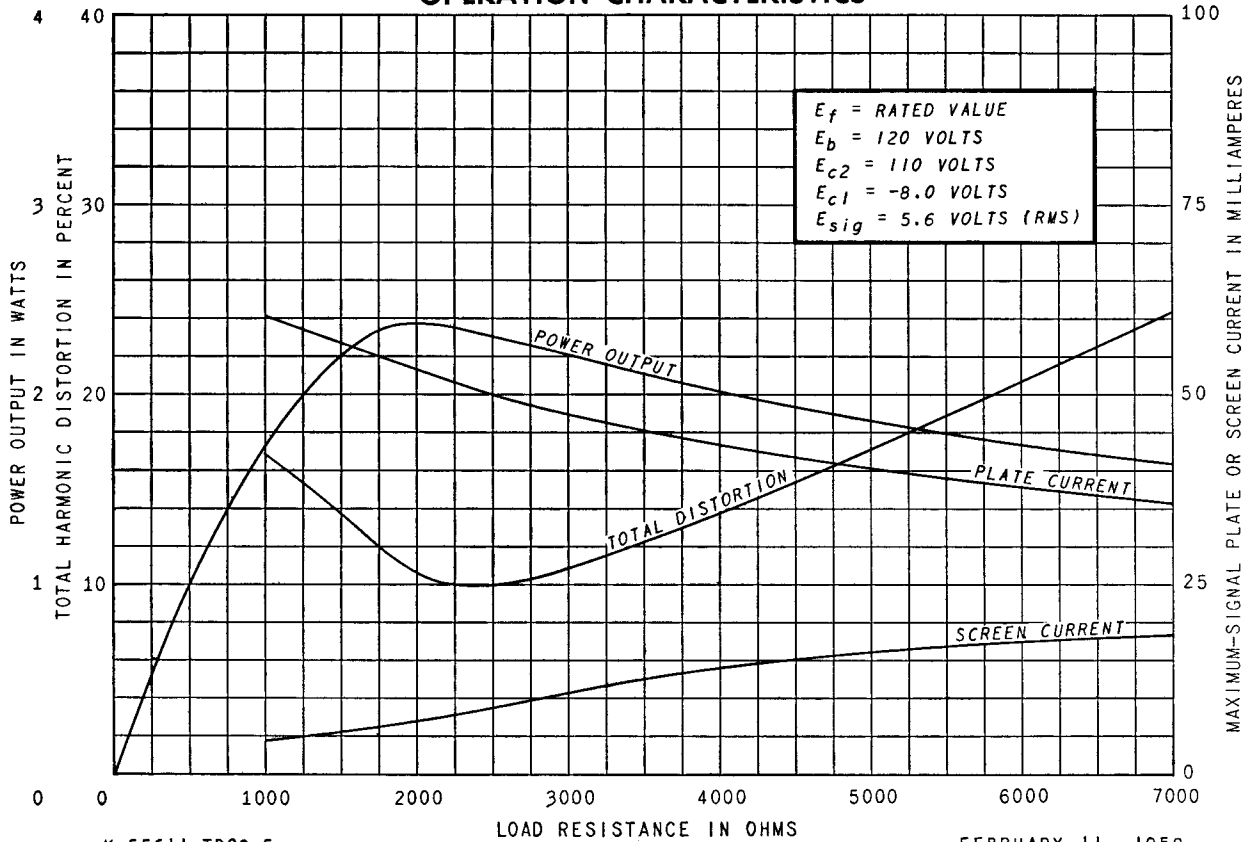
## CHARACTERISTICS AND TYPICAL OPERATION

### CLASS A<sub>1</sub> AMPLIFIER

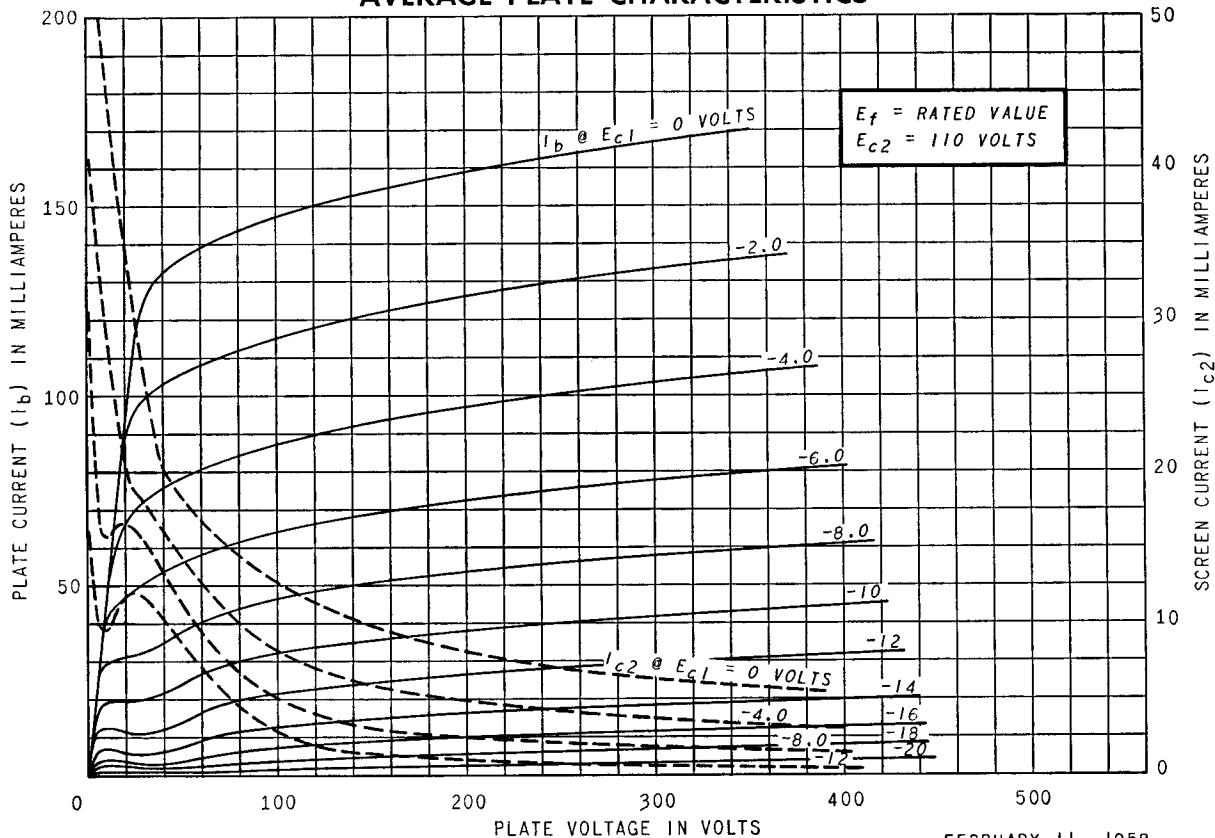
Plate Voltage .....	120	Volts
Screen Voltage .....	110	Volts
Grid-Number 1 Voltage .....	-8.0	Volts
Peak AF Grid-Number 1 Voltage .....	8.0	Volts
Plate Resistance, approximate .....	10000	Ohms
Transconductance .....	7500	Micromhos
Zero-Signal Plate Current .....	.49	Milliamperes
Maximum-Signal Plate Current .....	.50	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 Output .....	.23	Watts

\*Without external shield.

### OPERATION CHARACTERISTICS



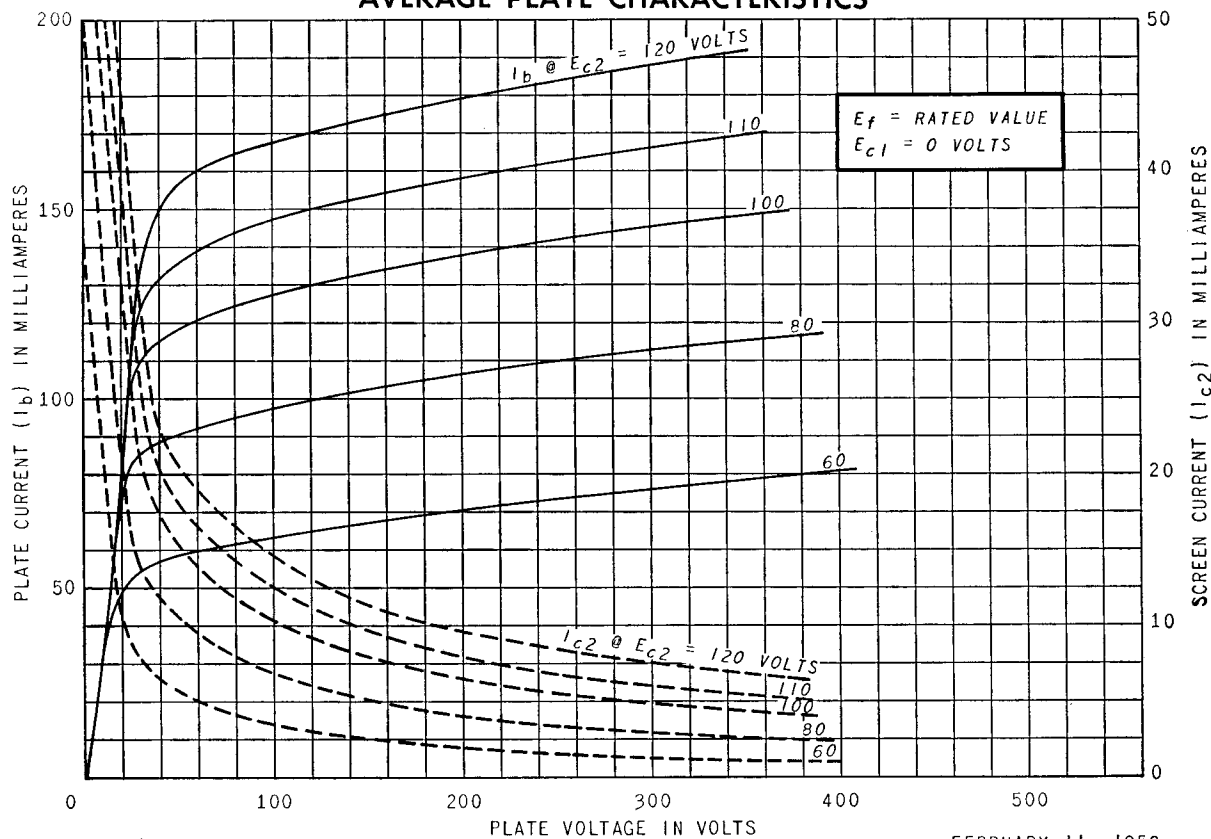
**AVERAGE PLATE CHARACTERISTICS**



K-55611-TD28-1

FEBRUARY 11, 1958

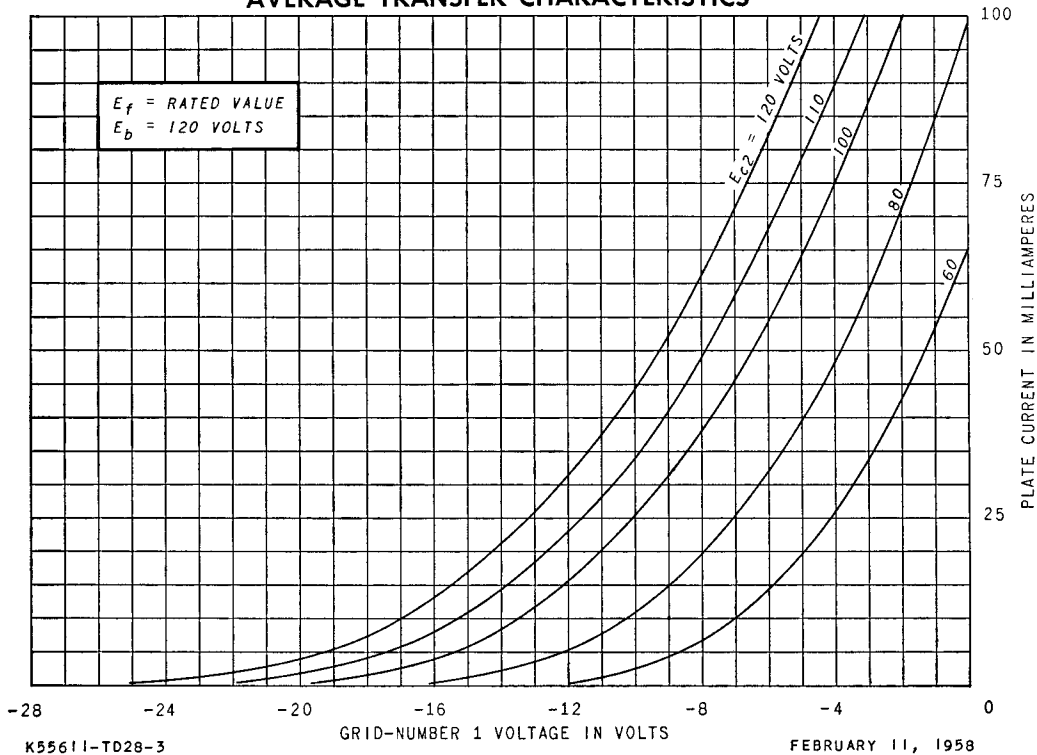
**AVERAGE PLATE CHARACTERISTICS**



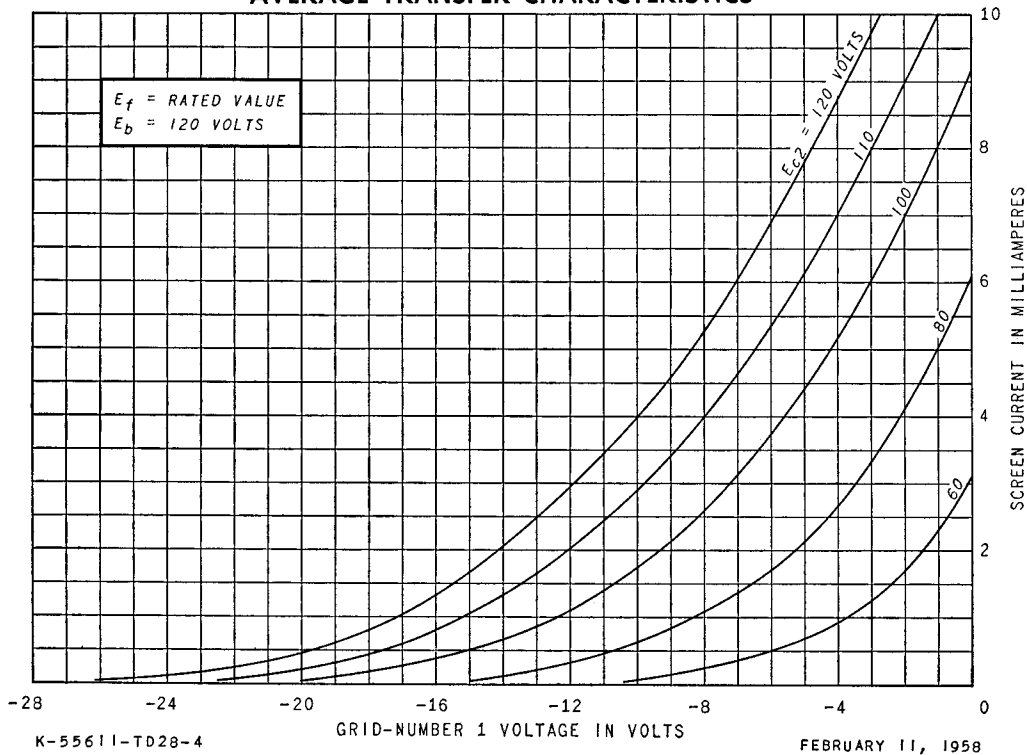
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**AVERAGE TRANSFER CHARACTERISTICS**



**AVERAGE TRANSFER CHARACTERISTICS**



**ELECTRONIC COMPONENTS DIVISION**



**Schenectady 5, N. Y.**