

BEAM PENTODE

DESCRIPTION AND RATING

The 35C5 is a miniature beam pentode primarily designed for use in the audio-frequency power output stage of radio receivers. Features include high power sensitivity and high efficiency at relatively low plate and screen voltages.

GENERAL

ELECTRICAL

Cathode—Coated Unipotential		
Heater Voltage, AC or DC	35.0	Volts
Heater Current	0.15	Amperes
Direct Interelectrode Capacitances, approximate*		
Grid-Number 1 to Plate	0.6	$\mu\mu\text{f}$
Input	12	$\mu\mu\text{f}$
Output	9.0	$\mu\mu\text{f}$

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
Plate Dissipation	4.5	Watts
Screen Dissipation	1.0	Watts
Heater-Cathode Voltage		
Heater Positive with Respect to Cathode	180	Volts
Heater Negative with Respect to Cathode	180	Volts
Grid-Number 1 Circuit Resistance		
With Fixed Bias	0.1	Megohms
With Cathode Bias	0.5	Megohms
Bulb Temperature at Hottest Point	250	C

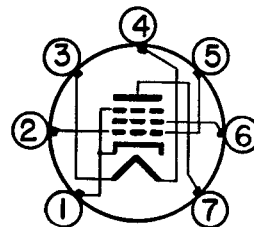
CHARACTERISTICS AND TYPICAL OPERATION

CLASS A₁ AMPLIFIER

Plate Voltage	110	Volts
Screen Voltage	110	Volts
Grid-Number 1 Voltage	-7.5	Volts
Peak AF Grid-Number 1 Voltage	7.5	Volts
Plate Resistance, approximate	13000	Ohms
Transconductance	5800	Micromhos
Zero-Signal Plate Current	40	Milliamperes
Maximum-Signal Plate Current	41	Milliamperes
Zero-Signal Screen Current	3.0	Milliamperes
Maximum-Signal Screen Current	7.0	Milliamperes
Load Resistance	2500	Ohms
Total Harmonic Distortion, approximate	10	Percent
Maximum-Signal Power Output	1.5	Watts

* Without external shield.

BASING DIAGRAM

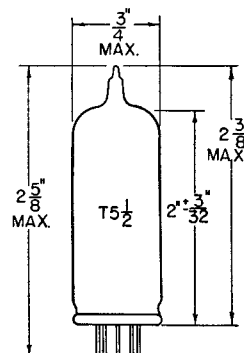


RETMA 7CV

TERMINAL CONNECTIONS

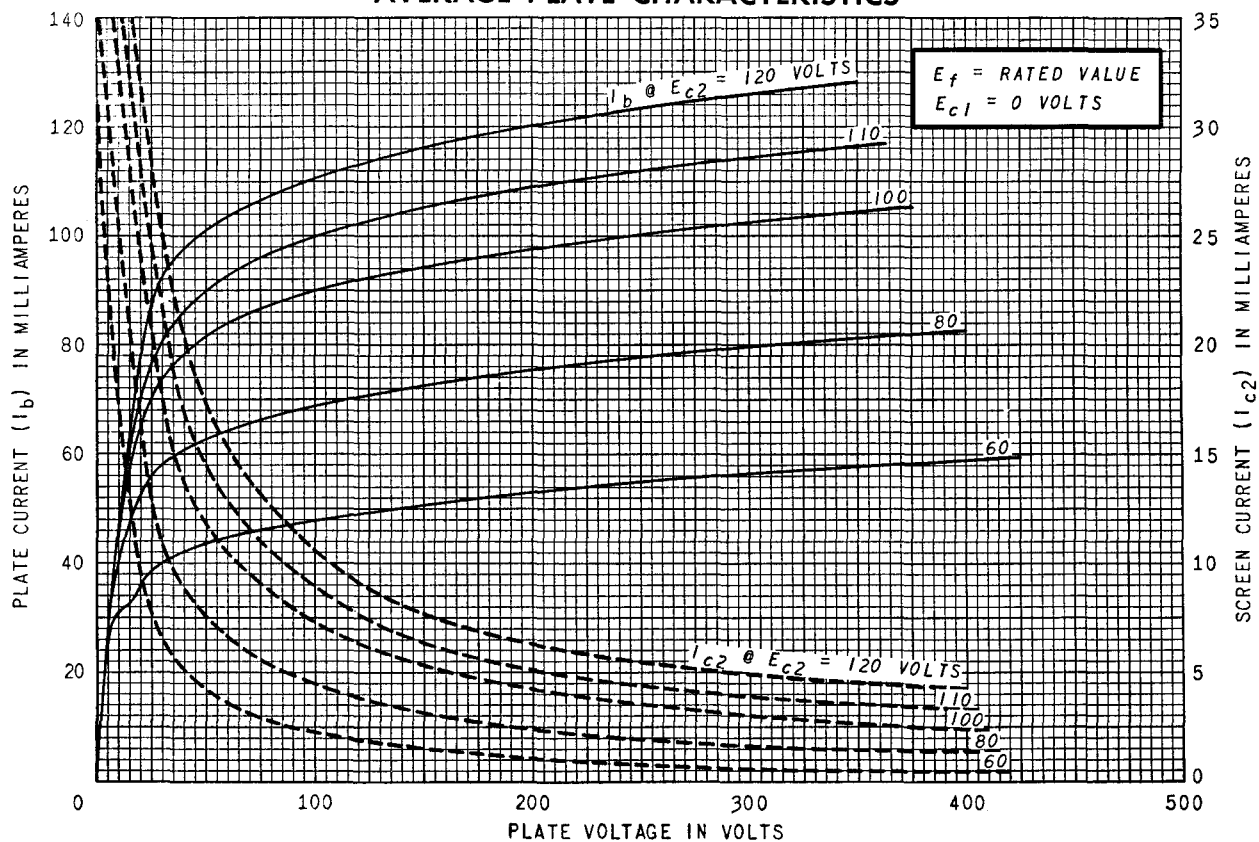
- Pin 1—Cathode and Beam Plates
- Pin 2—Grid Number 1
- Pin 3—Heater
- Pin 4—Heater
- Pin 5—Grid Number 1
- Pin 6—Grid Number 2 (Screen)
- Pin 7—Plate

PHYSICAL DIMENSIONS

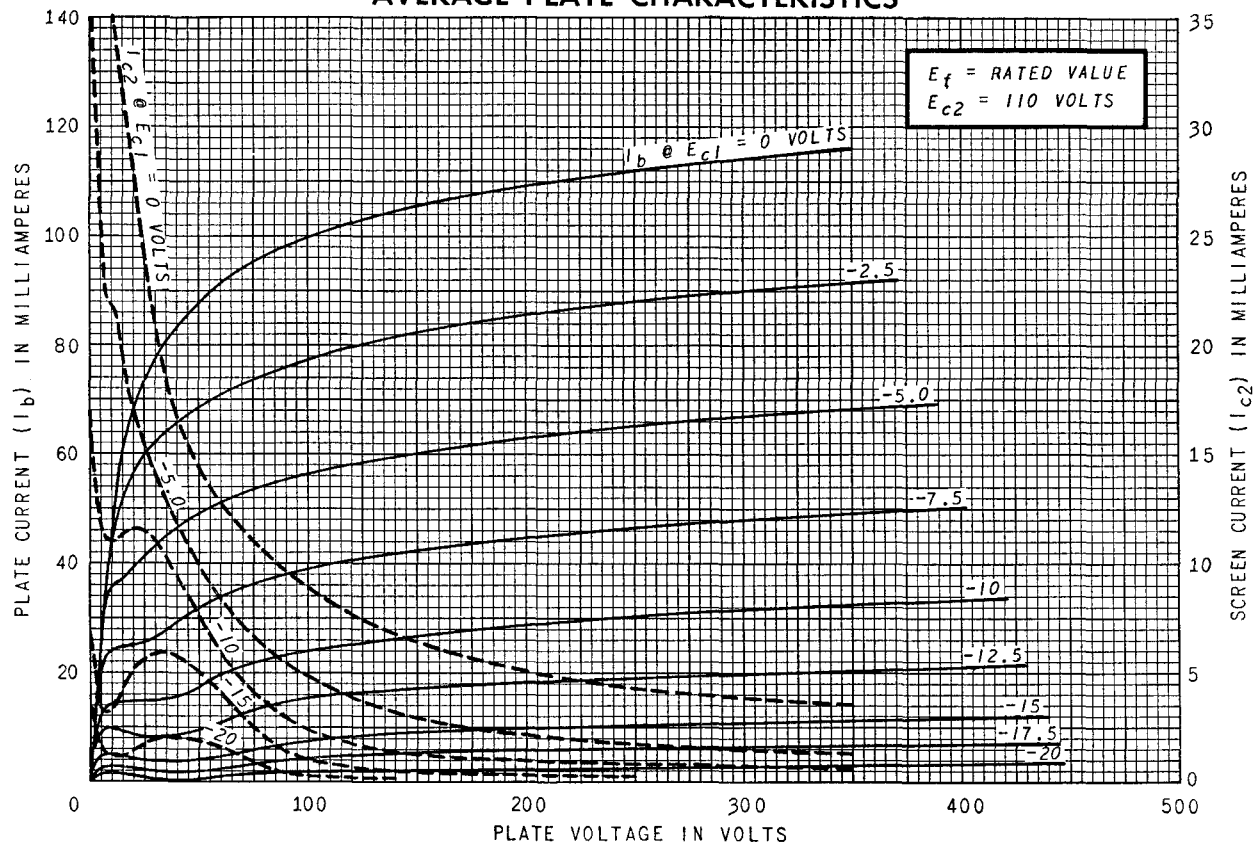


RETMA 5-3

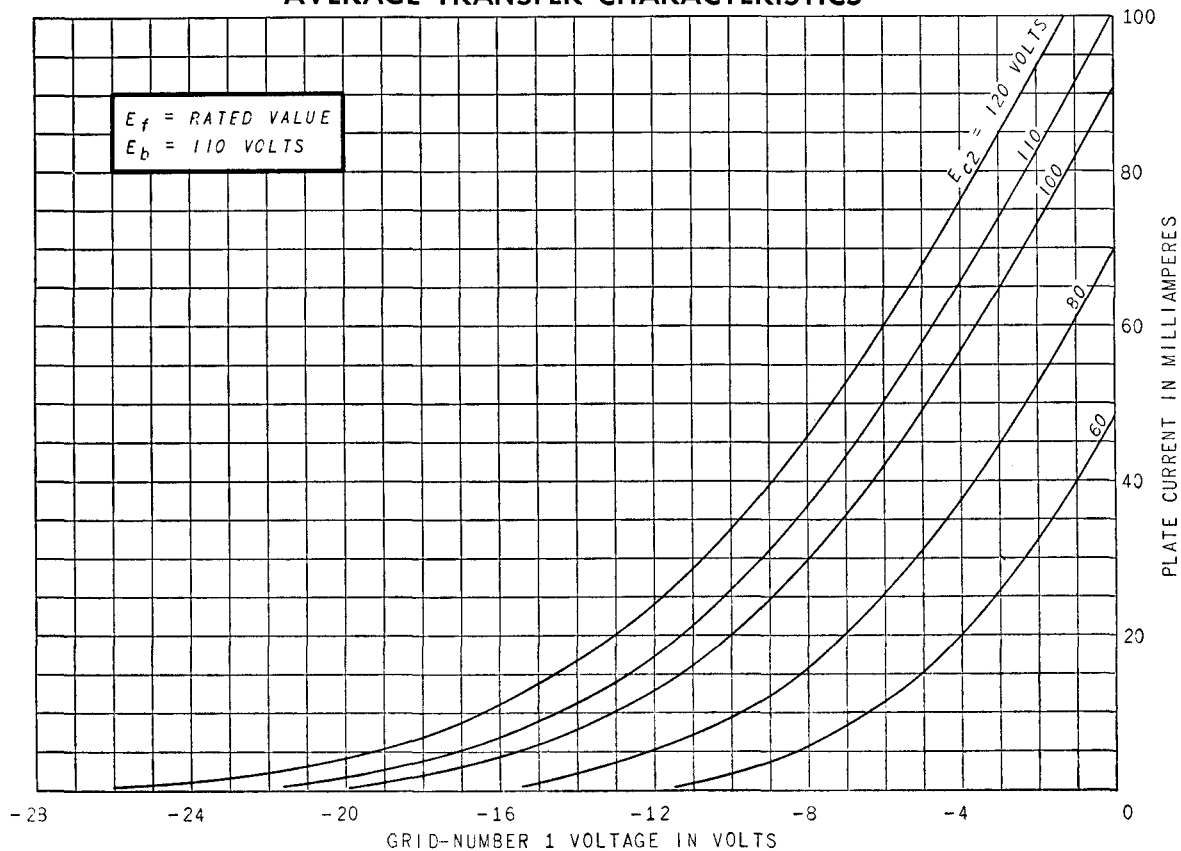
AVERAGE PLATE CHARACTERISTICS



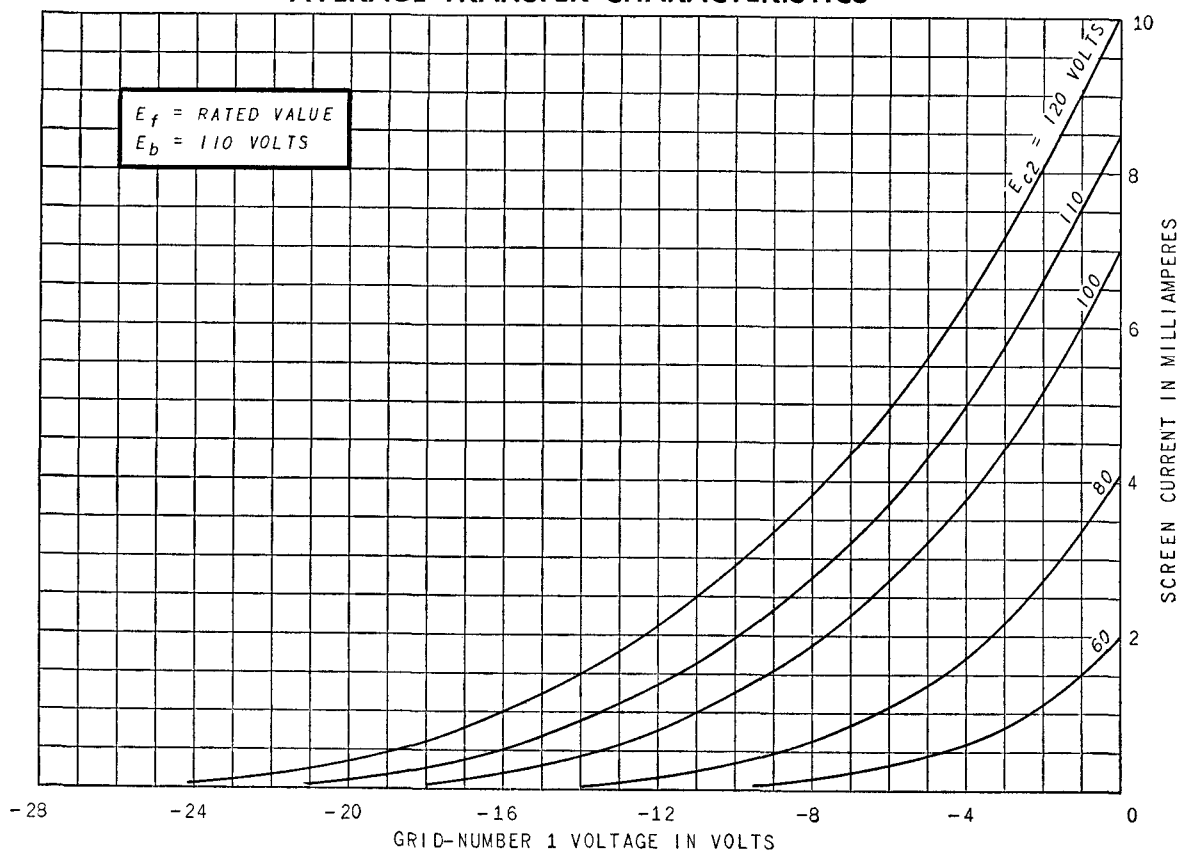
AVERAGE PLATE CHARACTERISTICS



AVERAGE TRANSFER CHARACTERISTICS



AVERAGE TRANSFER CHARACTERISTICS



OPERATION CHARACTERISTICS

