

MECHANICAL DATA

| | |
|-----------------------------|------------------------------|
| Bulb | T-5 1/2 |
| Base | E7-1, Miniature Button 7-Pin |
| Outline | 5-3 |
| Basing | 7CV |
| Cathode | Coated Unipotential |
| Mounting Position | Any |

ELECTRICAL DATA

HEATER CHARACTERISTICS

6CA5 12CA5 17CA5 25CA5

| | | | | | |
|--|------|------|------|------|------------|
| Heater Voltage | 6.3 | 12.6 | 16.8 | 25.0 | Volts |
| Heater Current | 1200 | 600 | 540 | 300 | Ma |
| Heater Warm-up Time ¹ | | 11 | 11 | | Seconds |
| Heater-Cathode Voltage (Design Center Values) Heater Negative with Respect to Cathode | | | | | |
| Total DC and Peak | 200 | 200 | 200 | 200 | Volts Max. |
| Heater Positive with Respect to Cathode | | | | | |
| DC | 100 | 100 | 100 | 100 | Volts Max. |
| Total DC and Peak | 200 | 200 | 200 | 200 | Volts Max. |

DIRECT INTERELECTRODE CAPACITANCES (Unshielded)

| | |
|-------------------------------|----------------------|
| Grid No. 1 to Plate | 0.5 $\mu\mu\text{f}$ |
| Input | 15 $\mu\mu\text{f}$ |
| Output | 9.0 $\mu\mu\text{f}$ |

RATINGS (Design Center Values)

| | | | |
|---|------|--------|------|
| Plate Voltage | 130 | Volts | Max. |
| Grid No. 2 Voltage | 130 | Volts | Max. |
| Positive Grid No. 1 Voltage | 0 | Volts | Max. |
| Plate Dissipation | 5.0 | Watts | Max. |
| Grid No. 2 Dissipation | 1.4 | Watts | Max. |
| Grid No. 1 Circuit Resistance | | | |
| Fixed Bias | 0.1 | Megohm | Max. |
| Cathode Bias | 0.5 | Megohm | Max. |
| Bulb Temperature at Hottest Point | 180° | C | |

CHARACTERISTICS AND TYPICAL OPERATION

Class A₁ Amplifier

| | | | |
|---|--------|--------|------------------|
| Plate Voltage | 110 | 125 | Volts |
| Grid No. 2 Voltage | 110 | 125 | Volts |
| Grid No. 1 Voltage | -4.0 | -4.5 | Volts |
| Peak AF Grid No. 1 Voltage | 4.0 | 4.5 | Volts |
| Zero-Signal Plate Current | 32 | 37 | Ma |
| Maximum-Signal Plate Current | 31 | 36 | Ma |
| Zero-Signal Grid No. 2 Current | 3.5 | 4.0 | Ma |
| Maximum-Signal Grid No. 2 Current | 7.5 | 11 | Ma |
| Transconductance | 8100 | 9200 | μmhos |
| Plate Resistance (Approx.) | 16,000 | 15,000 | Ohms |
| Load Resistance | 3500 | 4500 | Ohms |
| Maximum-Signal Power Output | 1.1 | 1.5 | Watts |
| Total Harmonic Distortion (Approx.) | 5 | 6 | Percent |

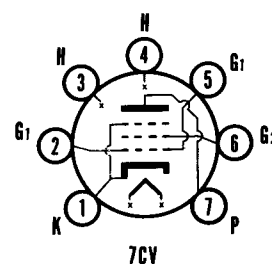
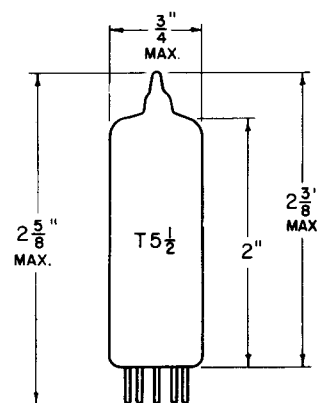
NOTE:

1. Heater warm-up time is defined as the time required for the voltage across the heater to reach 80% of the rated heater voltage after applying four (4) times rated heater voltage to a circuit consisting of the tube heater in series with a resistance equal to three (3) times the rated heater voltage divided by the rated heater current.

QUICK REFERENCE DATA

The Sylvania Types 6CA5, 12CA5, 17CA5, and 25CA5 are miniature beam power pentodes designed for service as audio output amplifiers. They feature high power sensitivity at relatively low plate and screen voltages.

Types 12CA5 and 17CA5 have controlled heater warm-up time for series string operation.



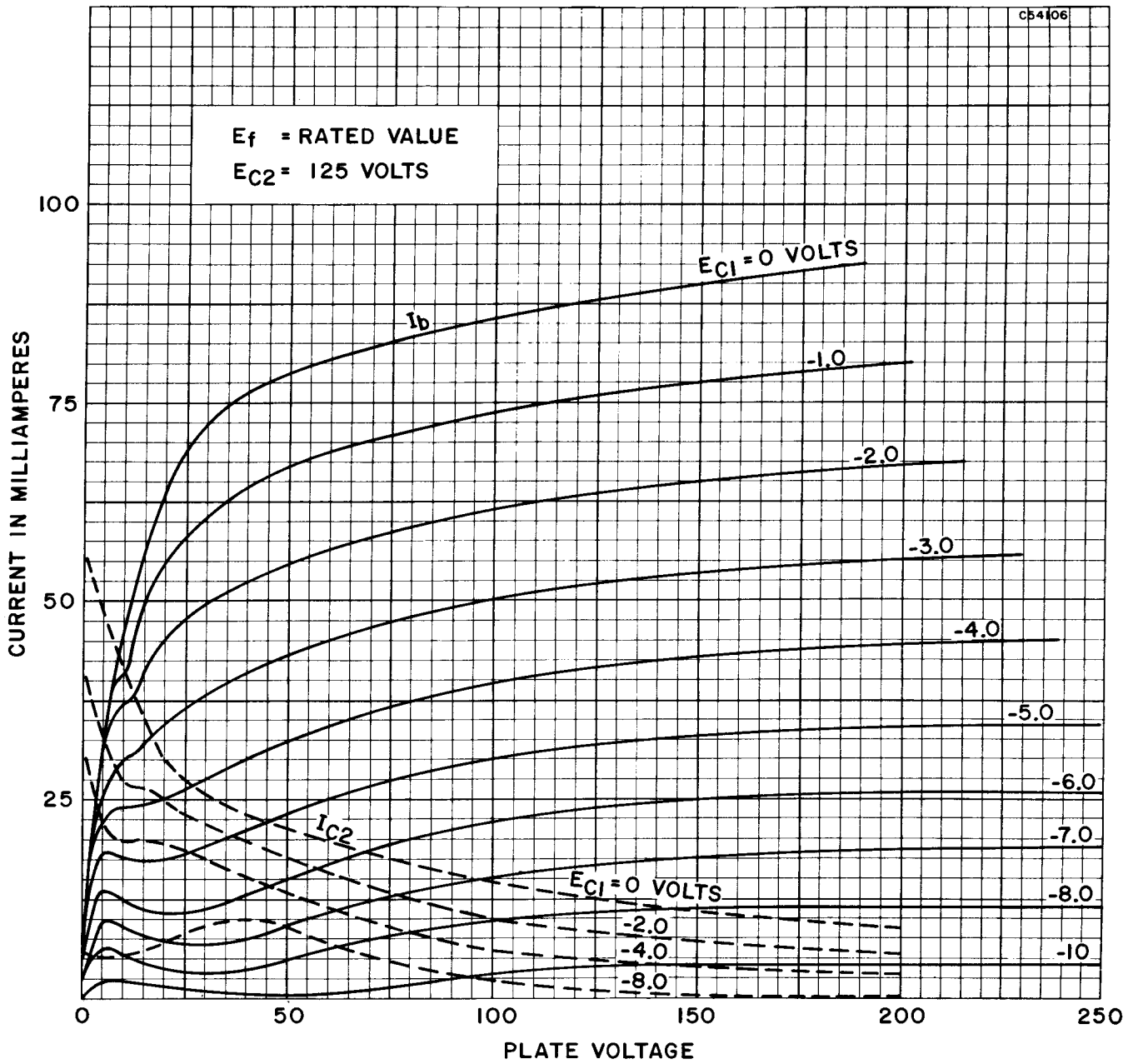
**SYLVANIA ELECTRIC
PRODUCTS INC.**
RADIO TUBE DIVISION
EMPORIUM, PA.

*Prepared and Released By The
TECHNICAL PUBLICATIONS SECTION
EMPORIUM, PENNSYLVANIA*

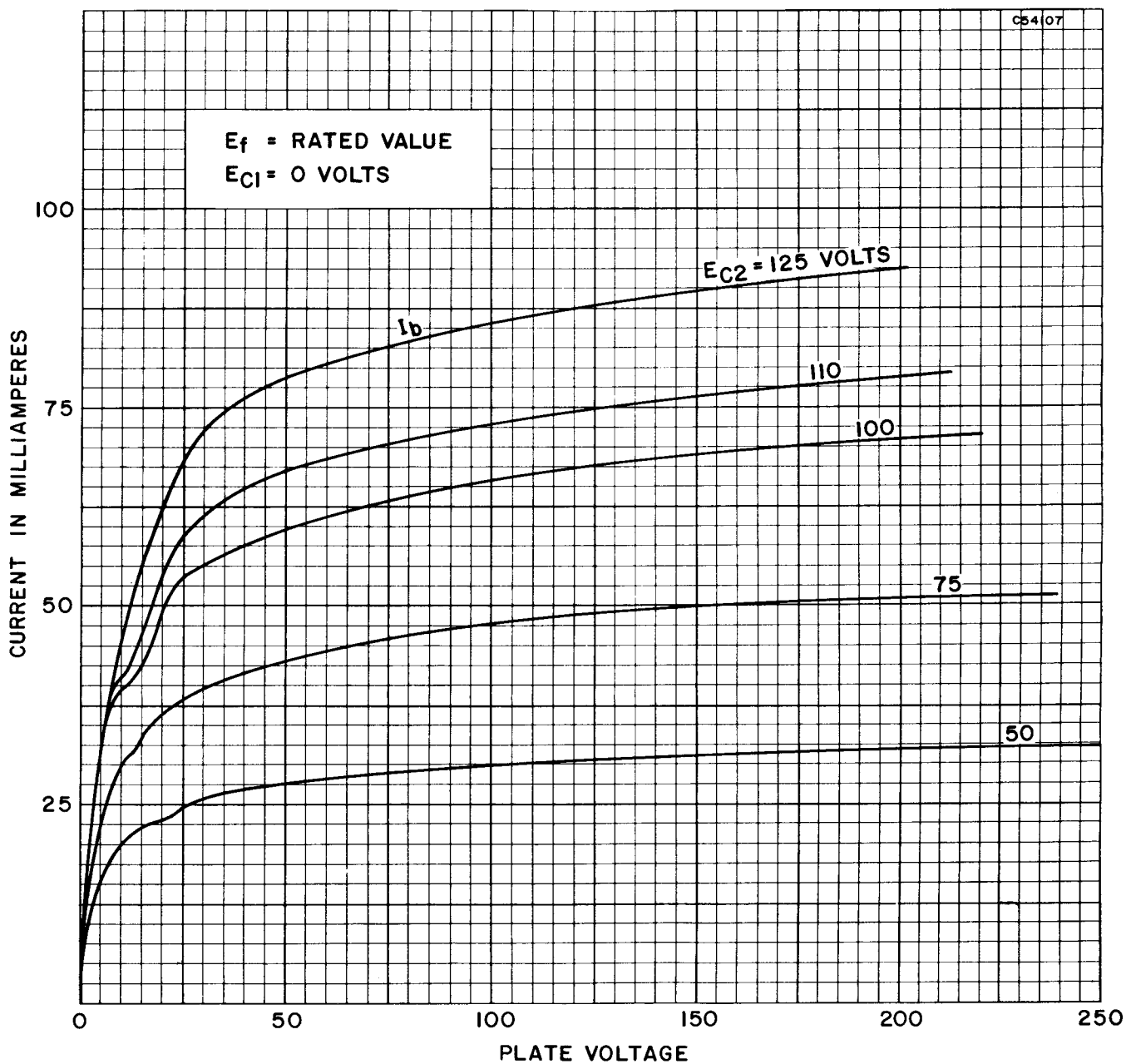
FEBRUARY, 1957

PAGE 1 OF 7

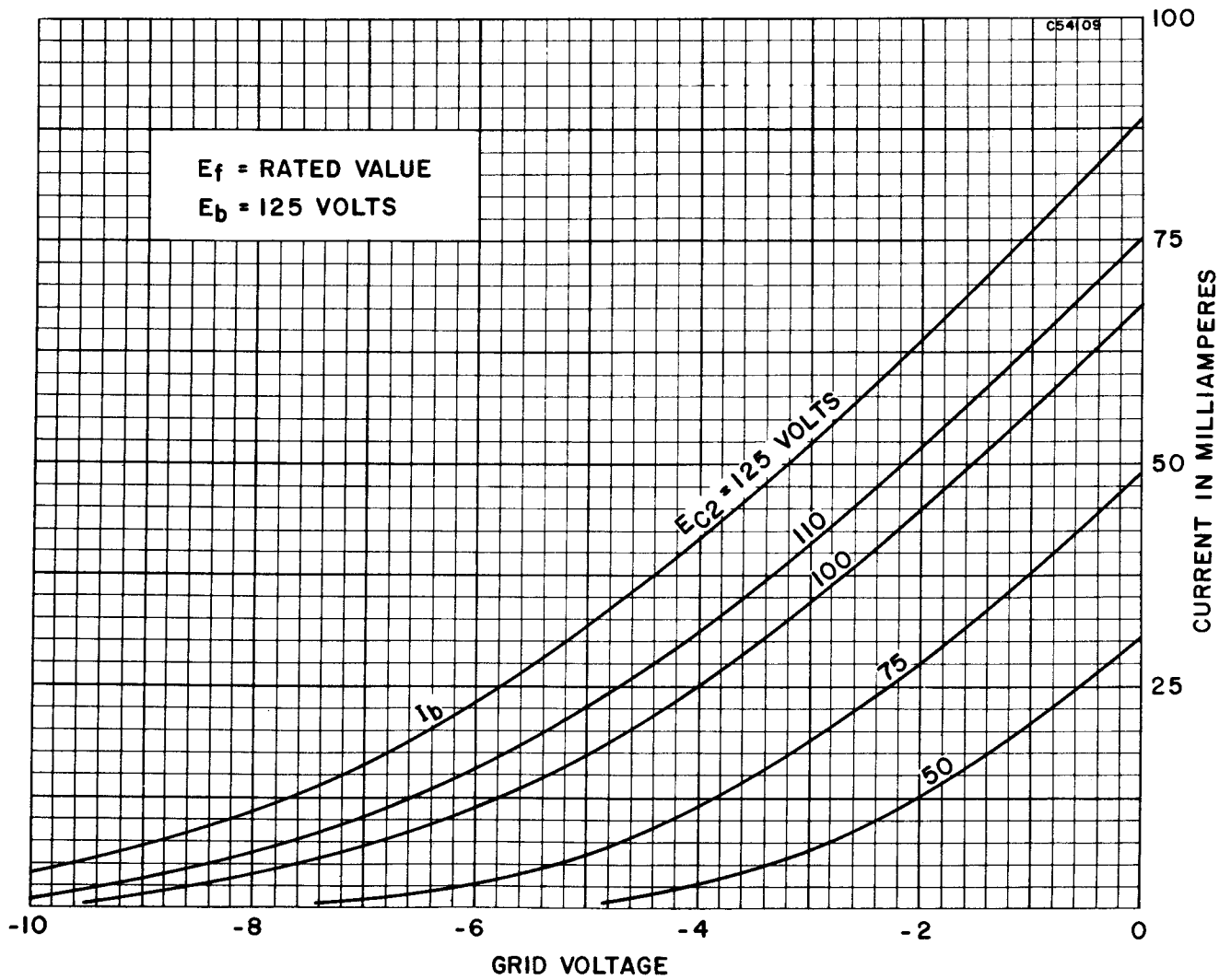
AVERAGE PLATE CHARACTERISTICS



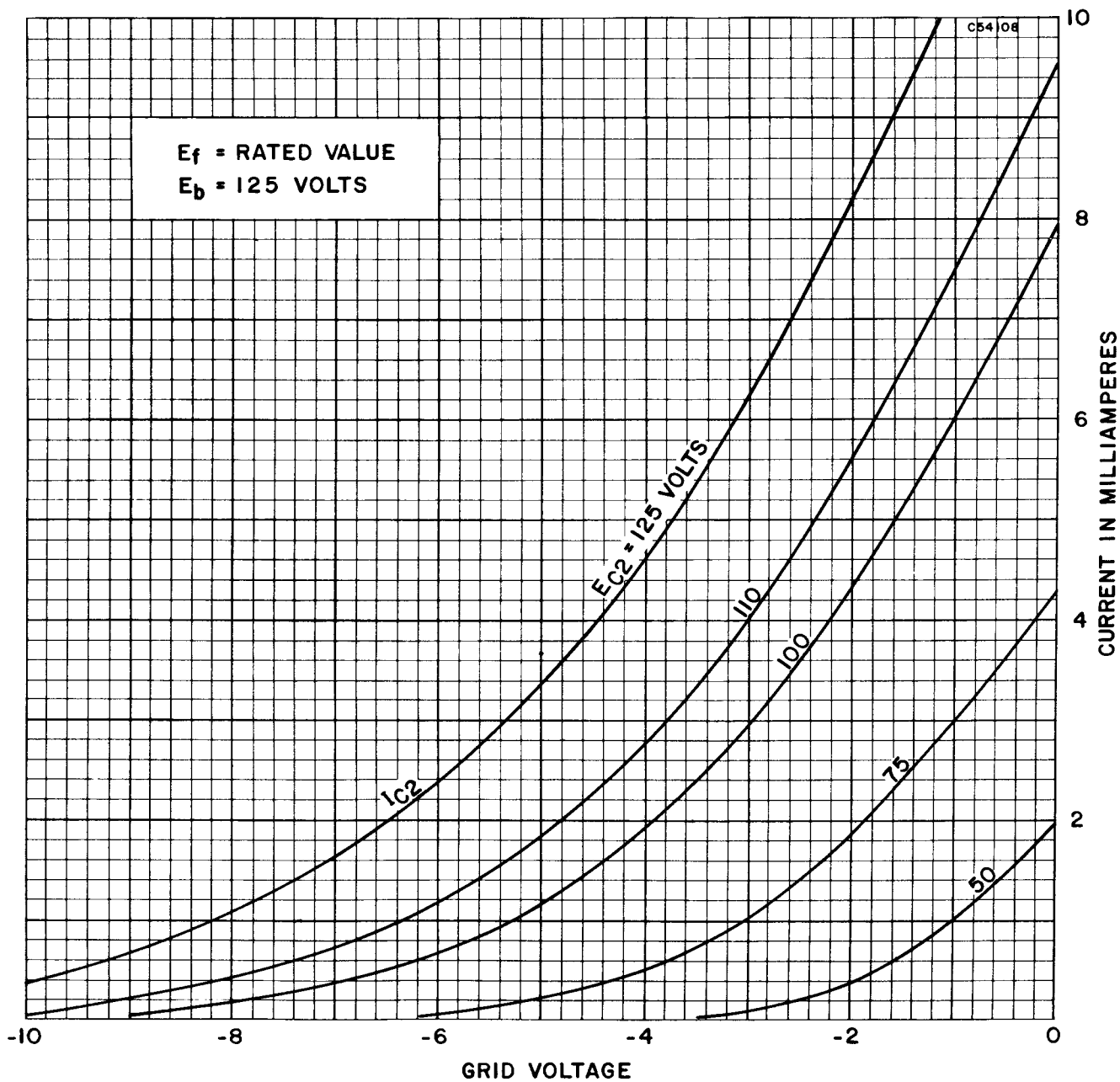
AVERAGE PLATE CHARACTERISTICS



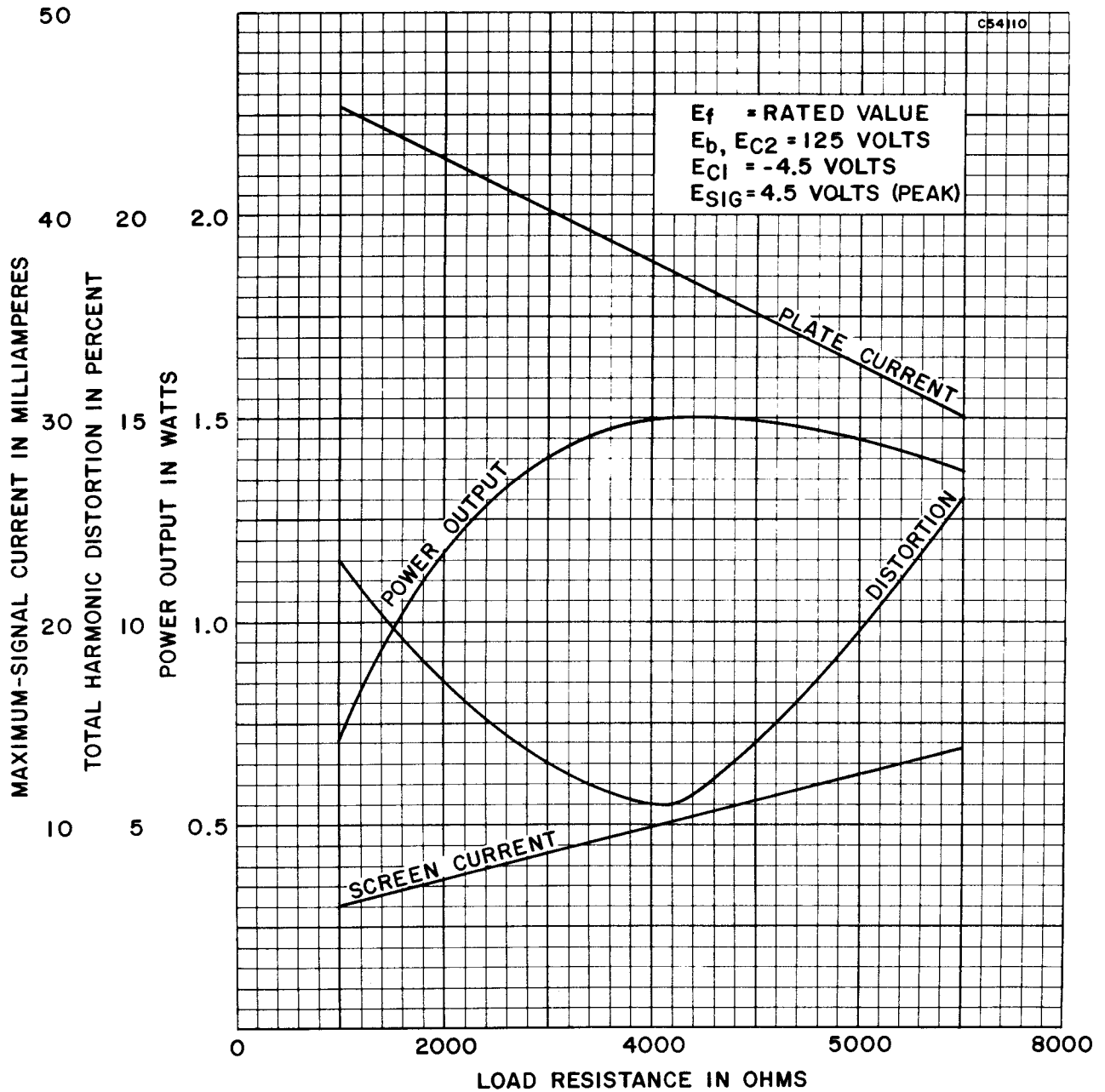
AVERAGE TRANSFER CHARACTERISTICS



AVERAGE TRANSFER CHARACTERISTICS



AVERAGE OPERATION CHARACTERISTICS



AVERAGE OPERATION CHARACTERISTICS

