MECHANICAL DATA

Bulb	T-6½
Base	E9-1, Small Button 9-Pin
Outline	6-3
Basing	9CK
Cathode	Coated Unipotential
Mounting Position	Any

ELECTRICAL DATA

HEATER CHARACTERISTICS

	6CM6	12CM6	
Heater Voltage	6.3	12.6	Volts
Heater Current	450	225	Ma
Heater-Cathode Voltage (Design Center Values)			
Heater Negative with Respect to Cathode			
Total DC and Peak	200	200	Volts Max.
Heater Positive with Respect to Cathode			
DC	100	100	Volts Max.
Total DC and Peak	200	200	Volts Max.

DIRECT INTERELECTRODE CAPACITANCES (Unshielded)

Grid to Plate: (g1 to p)	0.7 μμf
Input: g1 to (h+k+g2+g3)	8.0 μμf
Output: p to (h+k+g2+g3)	8.5 μμf

RATINGS (Design Center Values — Except as Noted)

Class A_1 Amplifier

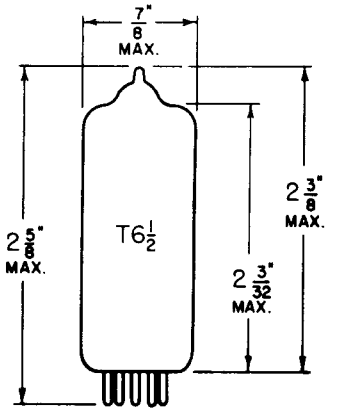
Plate Voltage	315 Volts Max.
Plate Dissipation	12 Watts Max.
Grid No. 2 Voltage	285 Volts Max.
Grid No. 2 Dissipation	2 Watts Max.
Grid No. 1 Circuit Resistance	
Fixed Bias	0.1 Megohm Max.
Cathode Bias	0.5 Megohm Max.

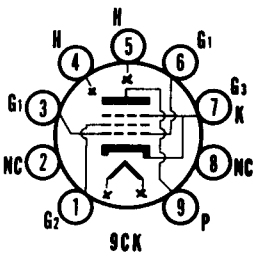
Vertical Deflection Amplifier[1]

	Pentode Connected	Triode Connected	
Plate Voltage	315	315	Volts Max.
Peak Positive Plate Voltage	2000	2000	Volts Abs. Max.
Plate Dissipation[2]	8	8	Watts Max.
Grid No. 2 Voltage	285		Volts
Grid No. 2 Dissipation[2]	1.75		Watts
Peak Negative Grid Voltage	250	250	Volts Max.
Average Cathode Current	40	40	Ma Max.
Peak Cathode Current	120	120	Ma Max.
Grid No. 1 Circuit Resistance			
Cathode Bias	2.2	2.2	Megohms Max.

QUICK REFERENCE DATA

The Sylvania Types 6CM6 and 12CM6 are miniature beam power pentodes designed for service as general purpose audio power amplifiers or vertical deflection amplifiers in television receiver sweep circuits. Except for bulb size and/or heater characteristics they are identical to the 6V6GT.





SYLVANIA ELECTRIC PRODUCTS INC.

RADIO TUBE DIVISION
EMPORIUM, PA.

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CHARACTERISTICS AND TYPICAL OPERATION

Class A_1 Amplifier (Single Tube)

Conditions:

Plate Voltage	180	250	315	Volts
Grid No. 2 Voltage	180	250	225	Volts
Grid No. 1 Voltage	−8.5	−12.5	−13.0	Volts
Peak A F Grid No. 1 Voltage	8.5	12.5	13.0	Volts
Zero Signal Plate Current	29	45	34	Ma
Maximum Signal Plate Current	30	47	35	Ma
Zero Signal Grid No. 2 Current	3.0	4.5	2.2	Ma
Maximum Signal Grid No. 2 Current	4.0	7.0	6.0	Ma
Plate Resistance (approx.)	50,000	50,000	80,000	Ohms
Transconductance	3,700	4,100	3,750	μmhos
Load Resistance	5,500	5,000	8,500	Ohms
Maximum Signal Power Output	2.0	4.5	5.5	Watts
Total Harmonic Distortion	8	8	12	Percent

Class A_1 Push-Pull Amplifier (Values are for Two Tubes)

Conditions:

Plate Voltage	250	285	Volts
Grid No. 2 Voltage	250	285	Volts
Grid No. 1 Voltage	−15	−19	Volts
Peak A F Grid No. 1 to Grid No. 1 Voltage	30	38	Volts
Zero Signal Plate Current	70	70	Ma
Maximum Signal Plate Current	79	92	Ma
Zero Signal Grid No. 2 Current	5	4	Ma
Maximum Signal Grid No. 2 Current	13	13.5	Ma
Plate-to-Plate Load Resistance	10,000	8,000	Ohms
Maximum Signal Power Output	10	14	Watts
Total Harmonic Distortion	5	3.5	Percent

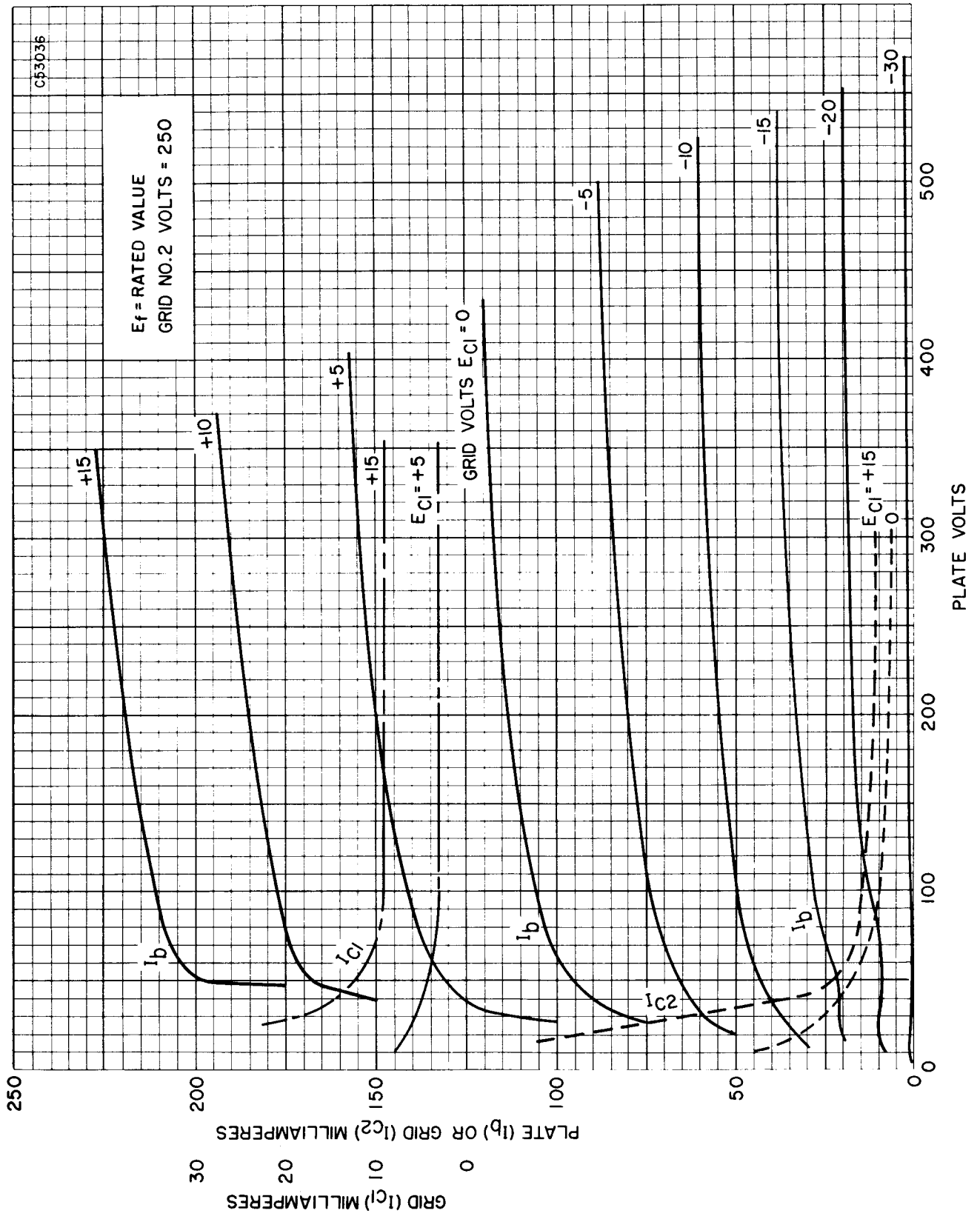
Vertical Deflection Amplifier

	Pentode Connected	Triode Connected	
Plate Voltage	250	250	Volts
Grid No. 2 Voltage	250		Volts
Grid No. 1 Voltage	−12.5	−12.5	Volts
Plate Current	45	49.5	Ma
Grid No. 2 Current	4.5		Ma
Transconductance	4,100	5,000	μmhos
Amplification Factor		9.8	
Plate Resistance (approx.)	50,000	1,960	Ohms
Grid No. 1 Voltage (approx.) for I_b = 0.5 Ma	−37	−37	Volts

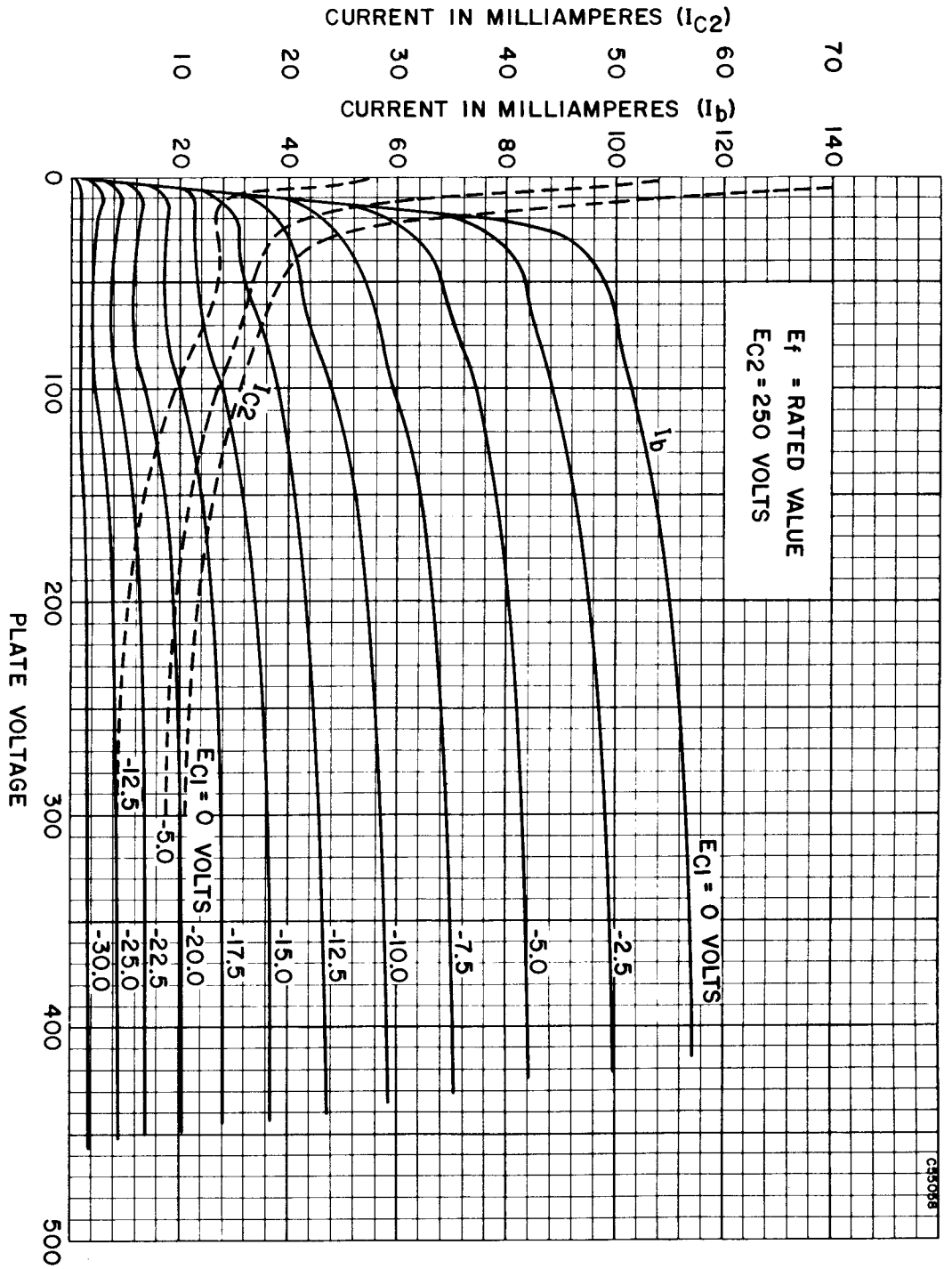
NOTES:

1. *For operating in 525 line, 30-frame system as described in "Standards of Good Engineering Practice for Television Broadcasting Stations, Federal Communications Commission". The duty cycle of the voltage pulse is not to exceed 15% of a scanning cycle.*
2. *In stages operating with a grid-leak bias, an adequate cathode bias resistor, or other suitable means, is required to protect the tube in the absence of excitation.*

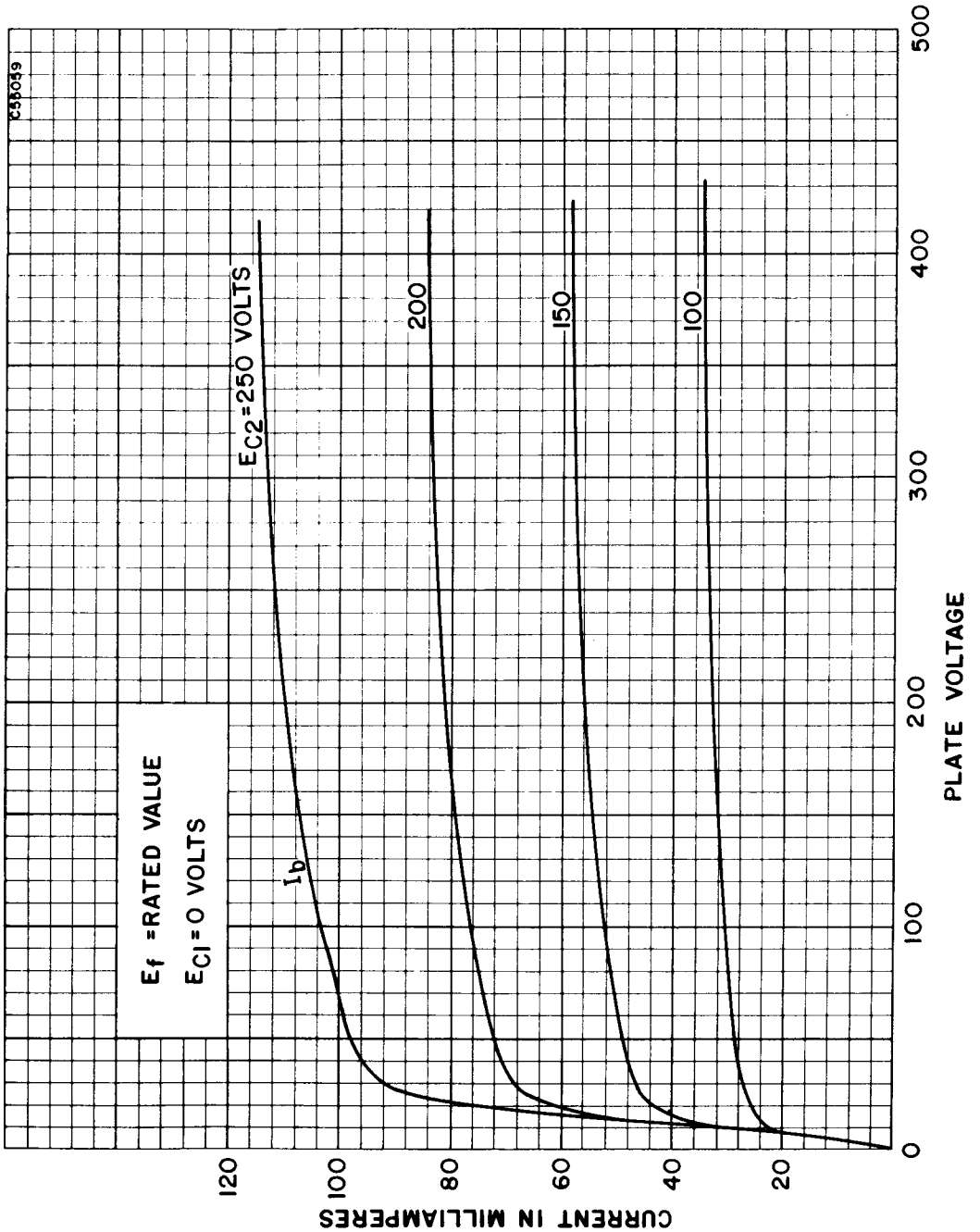
AVERAGE PLATE CHARACTERISTICS



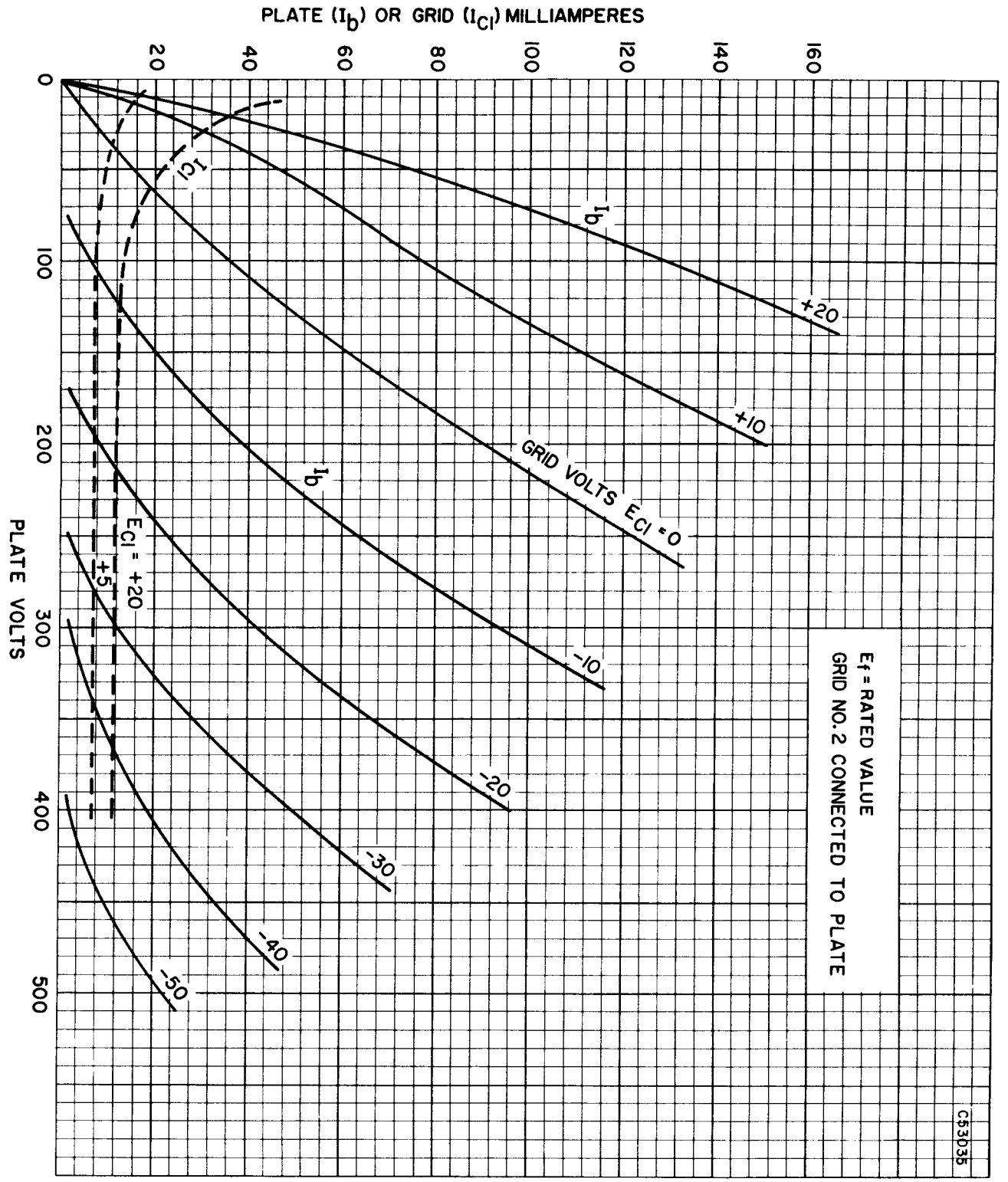
AVERAGE PLATE CHARACTERISTICS



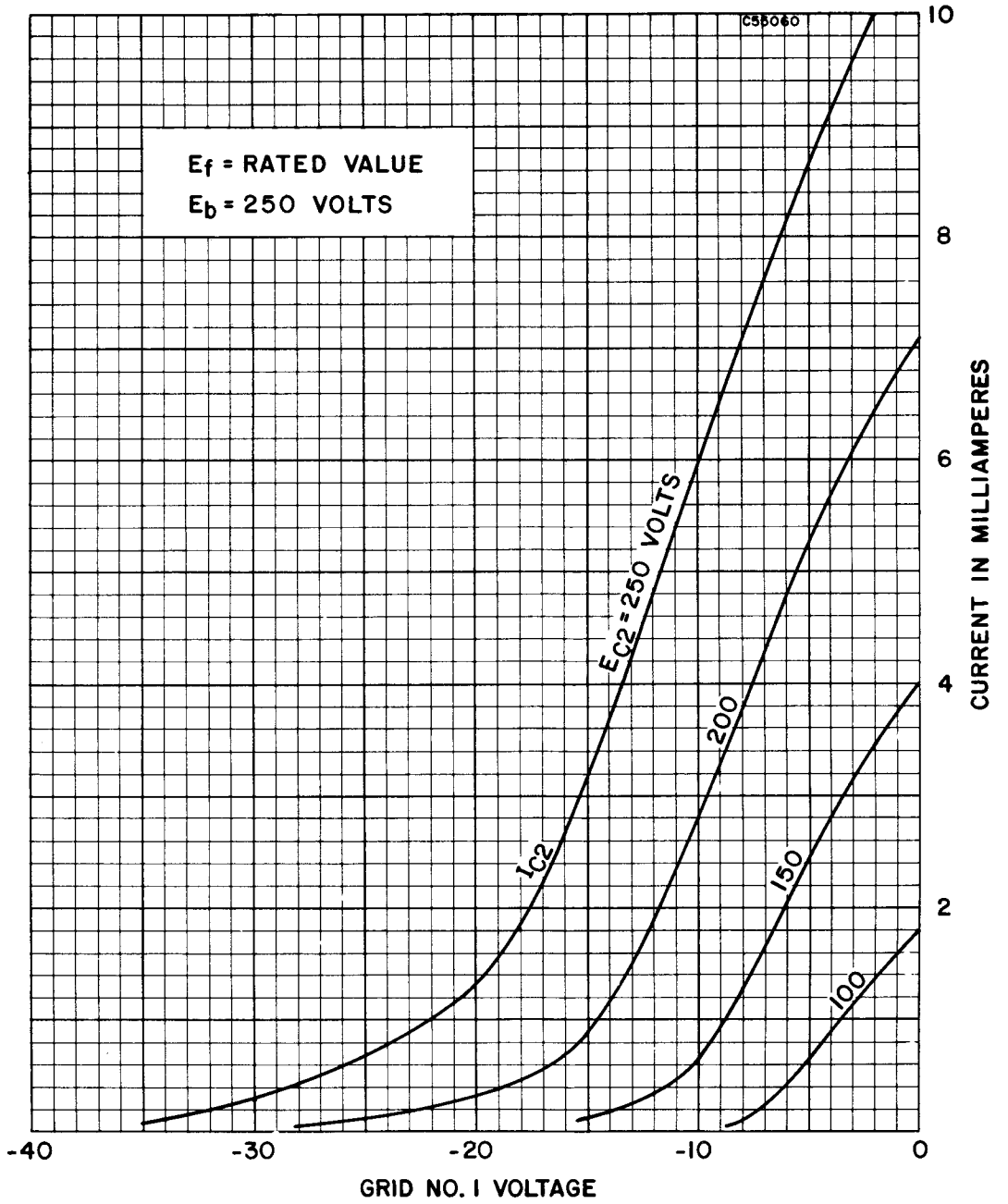
AVERAGE PLATE CHARACTERISTICS



AVERAGE PLATE CHARACTERISTICS
(TRIODE CONNECTED)



AVERAGE TRANSFER CHARACTERISTICS



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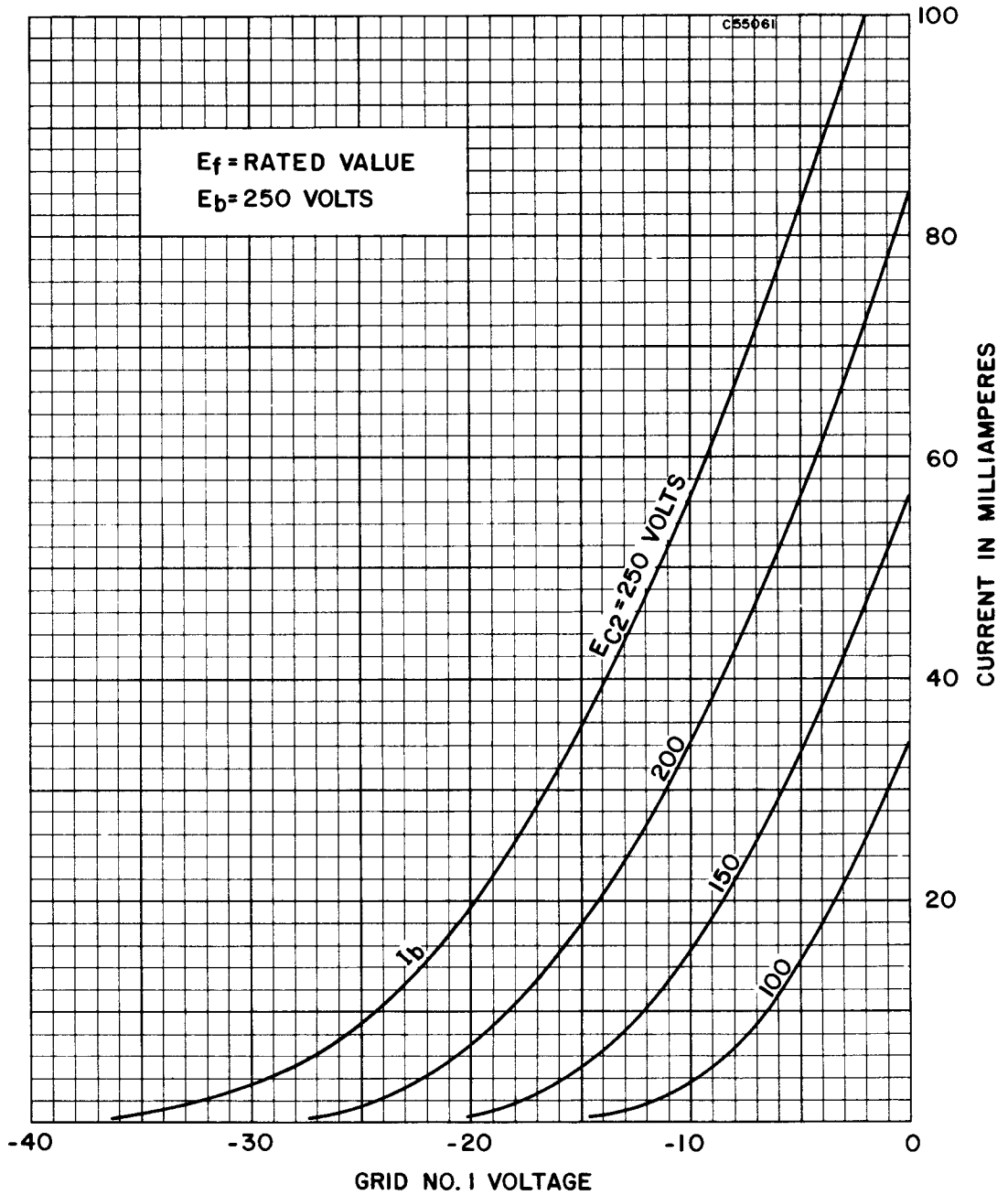

OPERATION CHARACTERISTICS