

MECHANICAL DATA

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

ELECTRICAL DATA

HEATER CHARACTERISTICS	3BC5	4BC5	6BC5	
Heater Voltage	3.15	4.2	6.3	Volts
Heater Current	600	450	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	Volts Max.
Heater Positive with Respect to Cathode				
DC	100	100	100	Volts Max.
Total DC and Peak.	200	200	200	Volts Max.

DIRECT INTERELECTRODE CAPACITANCES

	Pentode Connected	Shielded ²	Unshielded	
Grid No. 1 to Plate		0.020	0.030 μ f	Max.
Input: g1 to (h+k+g2+g3+IS)		6.6	6.5 μ f	
Output: p to (h+k+g2+g3+IS)		2.6	1.8 μ f	
Triode Connected ³				
Grid to Plate g1 to (p+g2)		2.5	2.5 μ f	
Input: g1 to (h+k+g3+IS)		4.0	3.9 μ f	
Output: p+g2 to (h+k+g3+IS)		4.3	3.0 μ f	

RATINGS (Design Center Values)

	Triode ³ Connected	Pentode Connected	
Plate Voltage	300	300	Volts Max.
Grid No. 2 Supply Voltage		300	Volts Max.
Grid No. 2 Voltage	See Rating Chart		
Plate Dissipation	2.5 ⁴	2.0	Watts Max.
Grid No. 2 Dissipation		0.5	Watt Max.
Positive Grid No. 1 Voltage	0	0	Volts Max.

CHARACTERISTICS AND TYPICAL OPERATION

Class A₁ Amplifier—Pentode Connected

Plate Voltage	100	125	250	Volts
Grid No. 2 Voltage	100	125	150	Volts
Cathode Bias Resistor	180	100	180	Ohms
Plate Current	4.7	8.0	7.5	Ma
Grid No. 2 Current	1.4	2.4	2.1	Ma
Transconductance	4900	6100	5700	μ mhos
Plate Resistance (Approx.)	0.6	0.5	0.8	Megohm
Grid No. 1 Voltage for Ib=10 μ a	-5	-6	-8	Volts

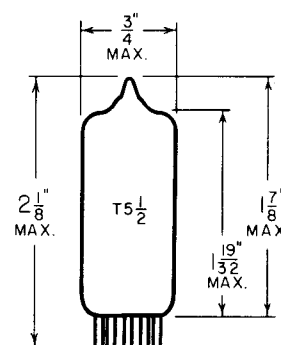
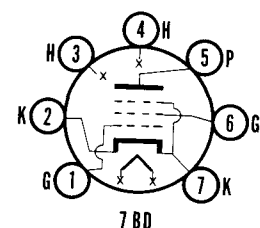
Triode Connected³

Plate Voltage	250	180	Volts
Cathode Bias Resistor	820	330	Ohms
Plate Current ⁴	6.0	8.0	Ma
Transconductance	4400	6000	μ mhos
Amplification Factor	40	42	
Plate Resistance (Approx.)	9000	6000	Ohms

QUICK REFERENCE DATA

The Sylvania Types 3BC5, 4BC5 and 6BC5 are miniature, high transconductance, sharp cutoff pentodes designed for use as IF amplifiers in television receivers.

Types 3BC5 and 4BC5 have controlled heater warm-up time for series string operation.



SYLVANIA ELECTRIC
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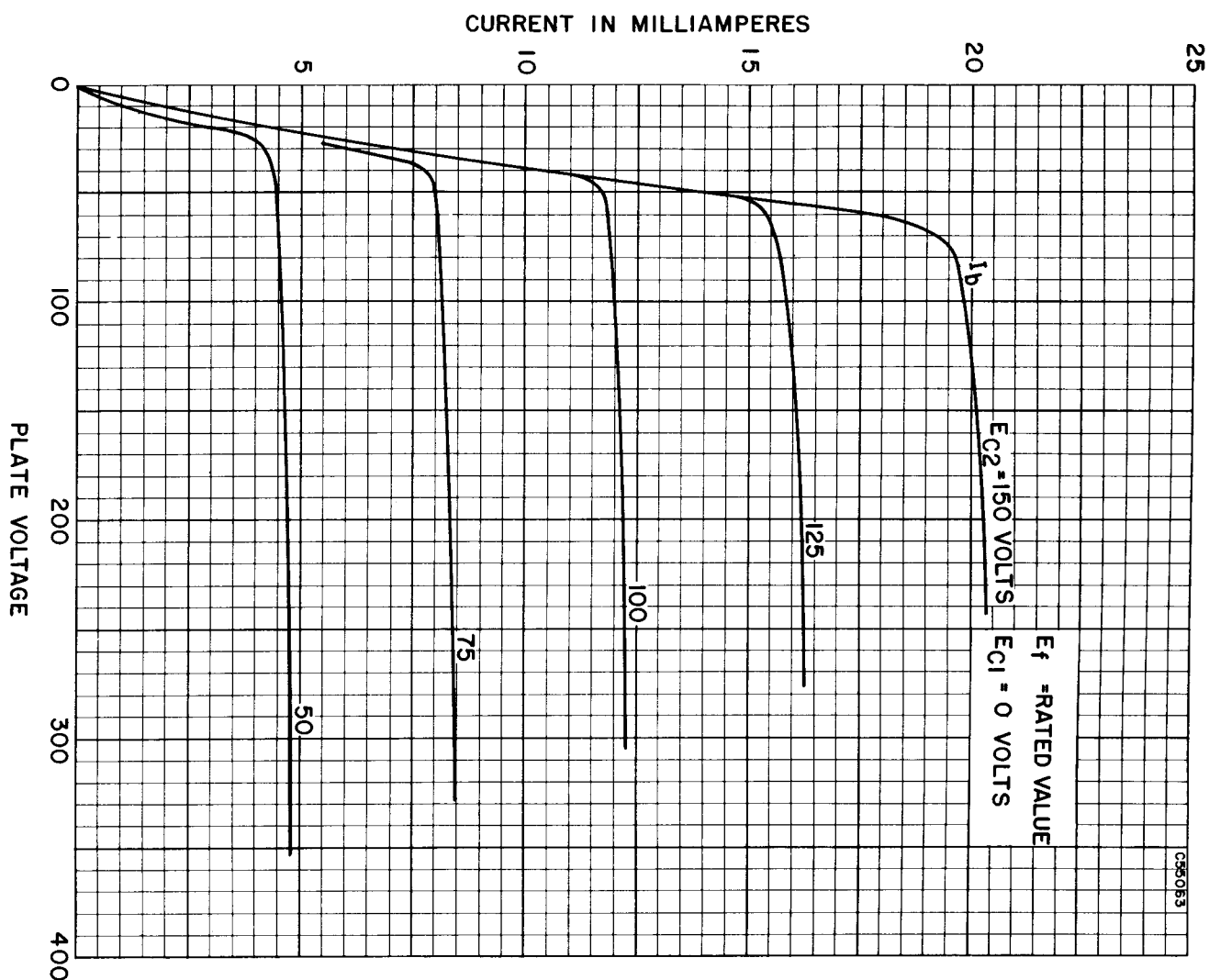
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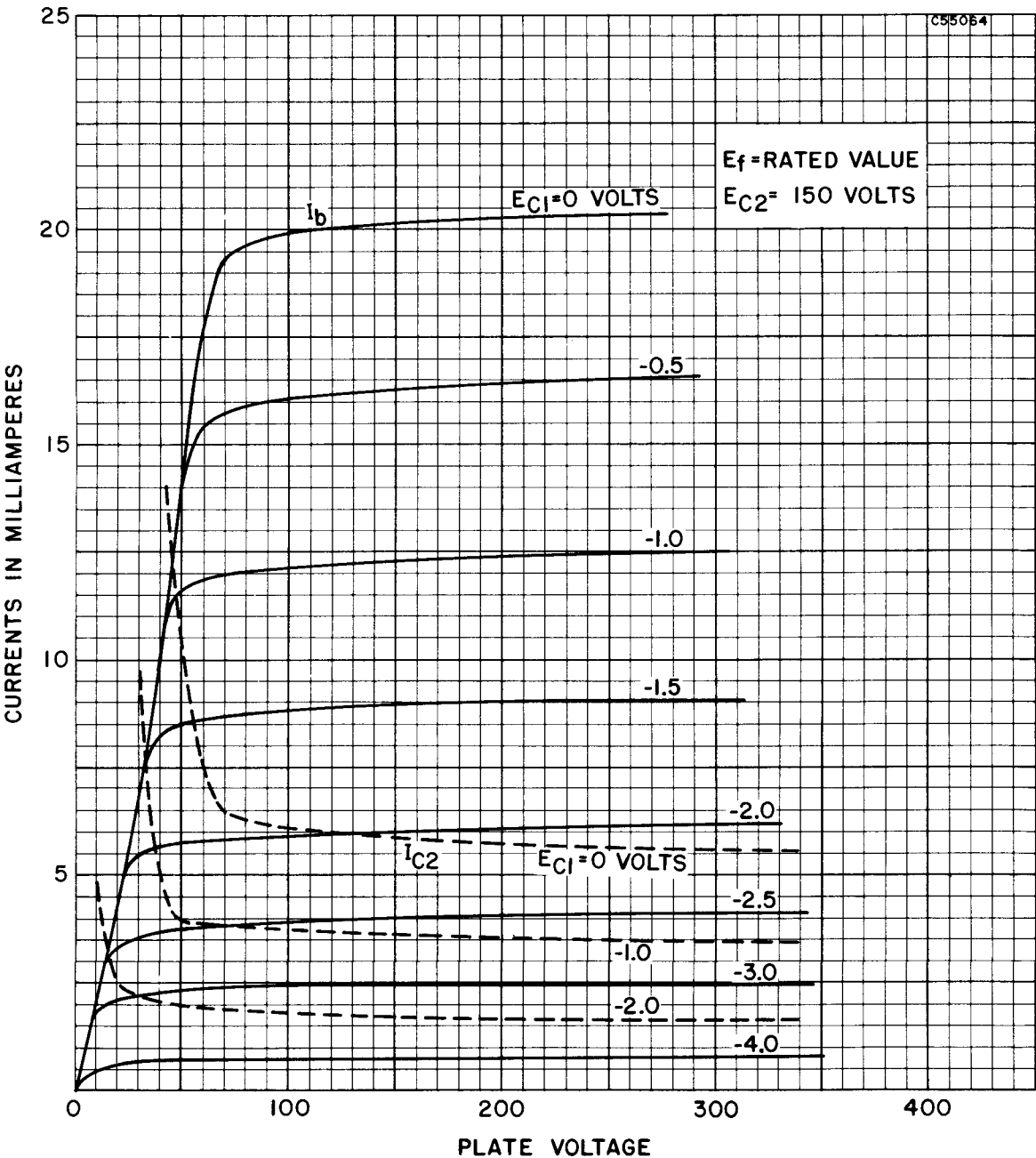
NOTES:

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.
2. External shield No. 316 connected to pin 7.
3. Screen grid tied to plate.
4. Total current flowing to plate and screen.

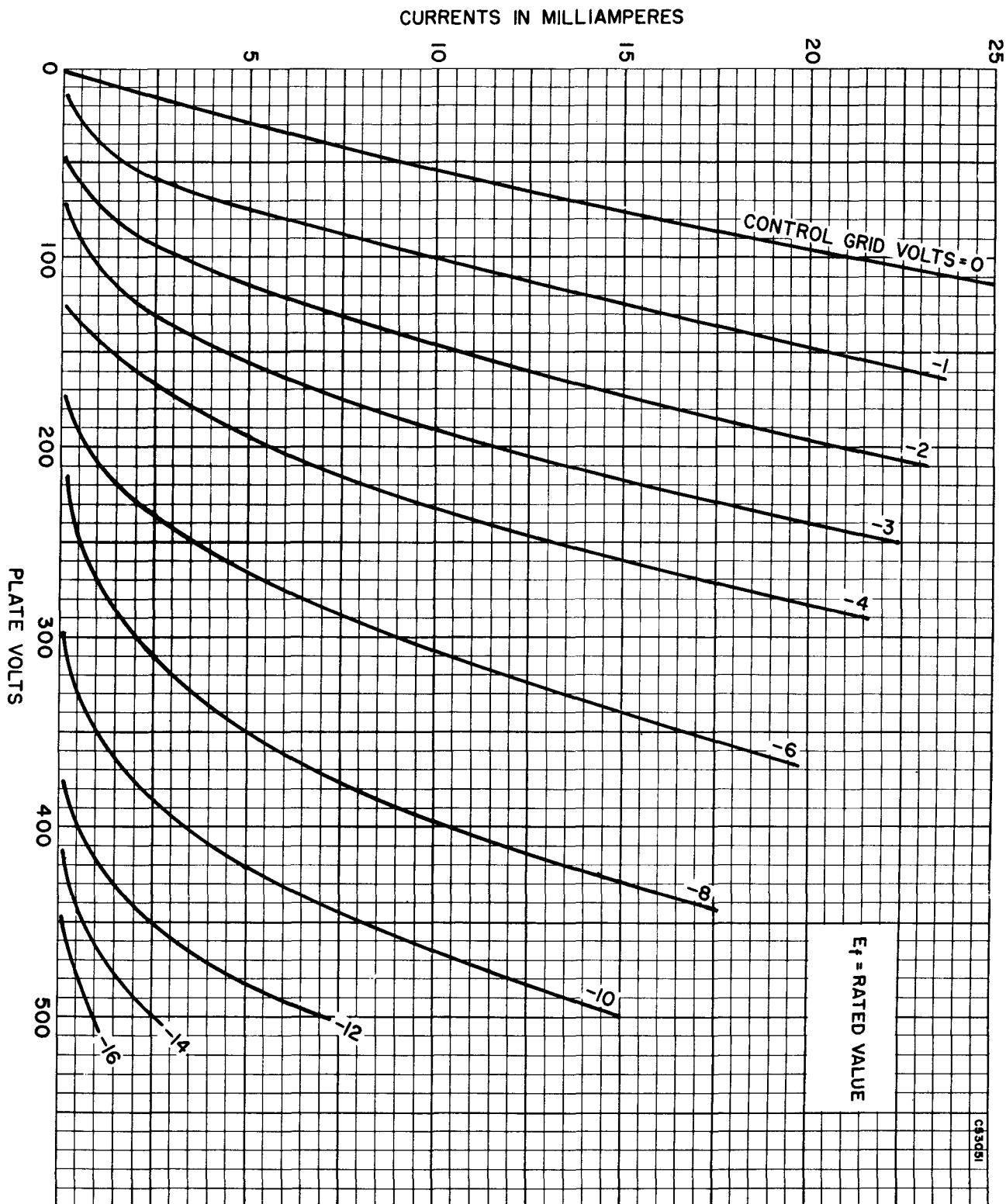
AVERAGE PLATE CHARACTERISTICS



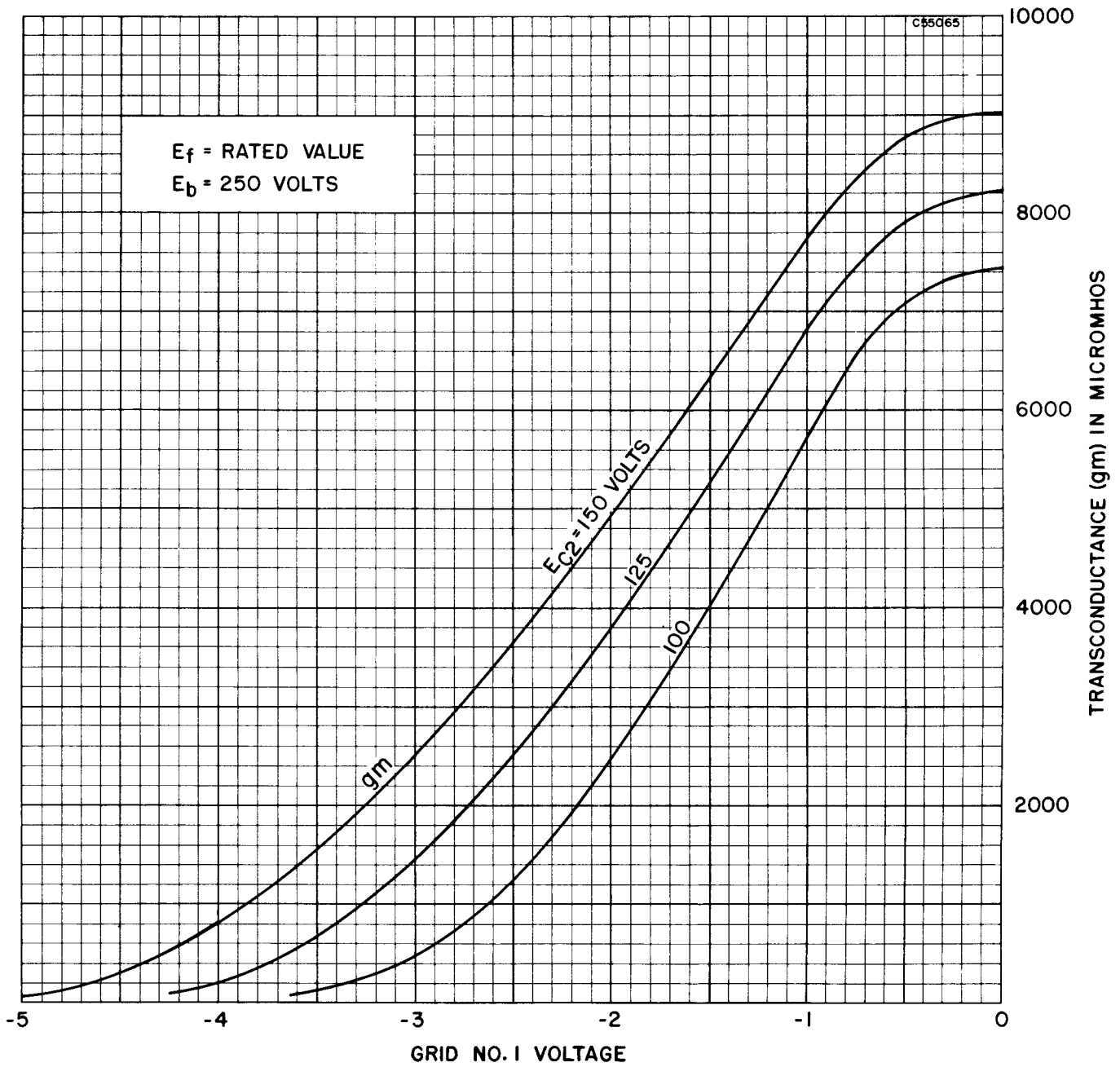
AVERAGE PLATE CHARACTERISTICS



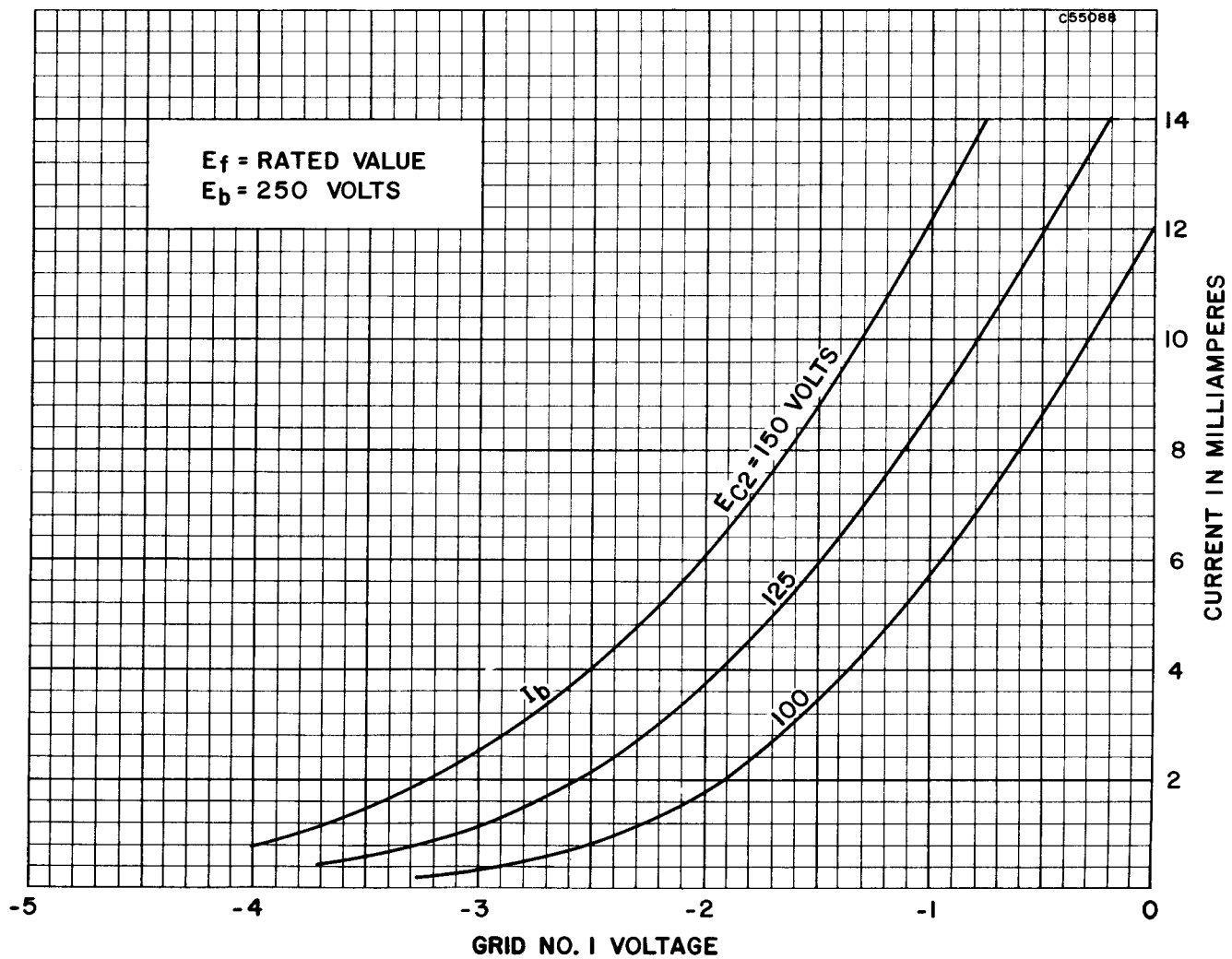
AVERAGE PLATE CHARACTERISTICS
(TRIODE CONNECTED)



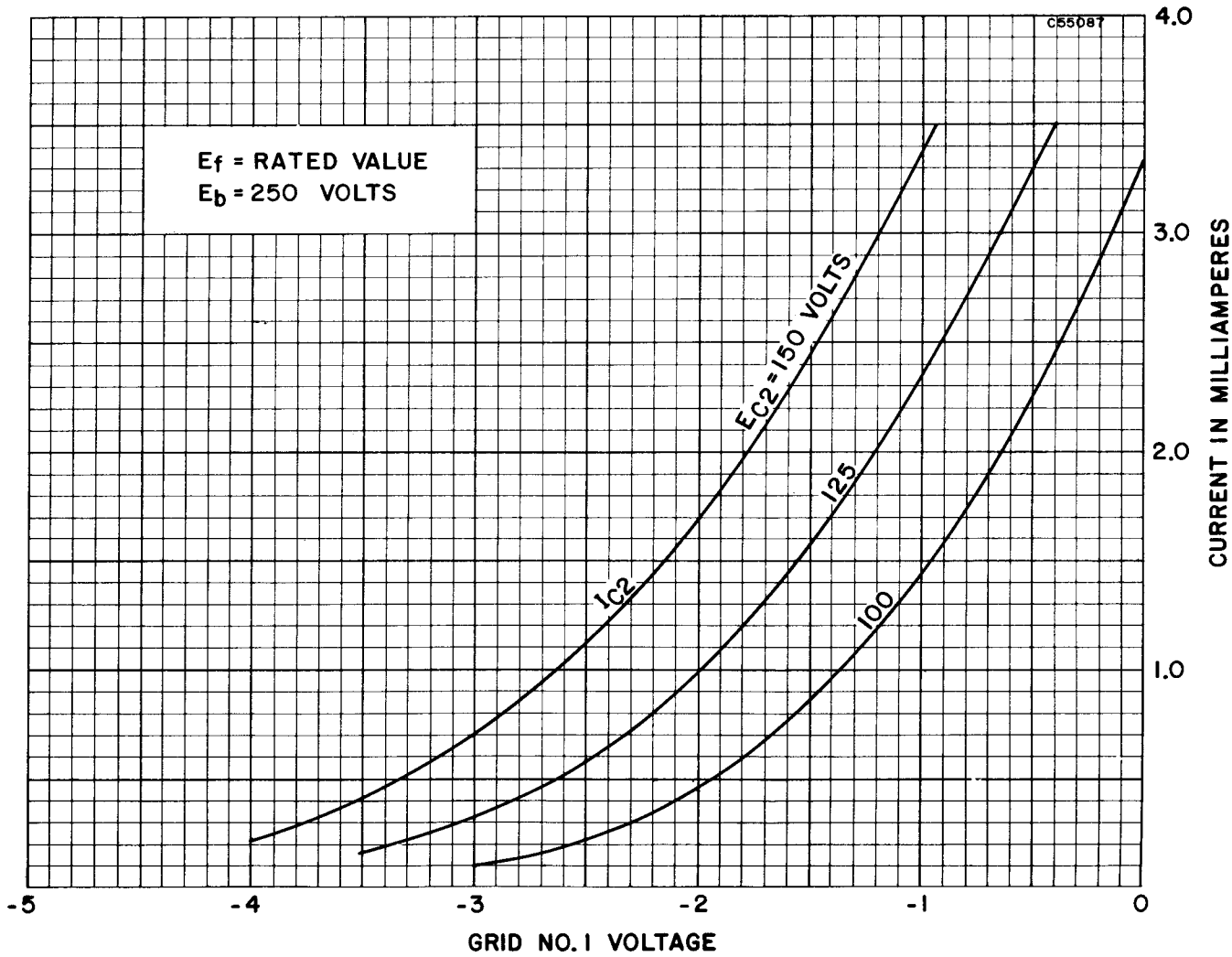
AVERAGE TRANSFER CHARACTERISTICS



AVERAGE TRANSFER CHARACTERISTICS



AVERAGE TRANSFER CHARACTERISTICS



RATING CHART

