SYLVANIA

engineering data service

SYLVANIA
6AN8
6AN8A
5AN8

MECHANICAL DATA

Bulb	T-6 ½
Base	E9-1, Small Button 9-Pin
Outline	6-2
Basing	9DA
Cathode	Coated Unipotential
Mounting Position	Any

ELECTRICAL DATA

HEATER CHARACTERISTICS	5AN8	6AN8	6AN8A	
Heater Voltage	4.7	6.3	6.3 Volts	
Heater Current	600	450	450 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 (Unshielded)

Triode Section		
Grid to Plate	1.5 μμf	
Input	2.0 μμf	
Output	0.27 μμf	
Pentode Section		
Grid No. 1 to Plate	0.04 μμf	Max.
Input	7.0 μμf	
Output	2.3 μμf	
Coupling		
Triode Grid to Pentode Plate	0.005 μμf	
Pentode Grid No. 1 to Triode Plate	0.006 μμf	
Pentode Plate to Triode Plate	0.045 μμf	

RATINGS (Design Center Values)	Triode Section	Pentode Section	
Plate Voltage	300	300 Volts	Max.
Grid No. 2 Supply Voltage		300 Volts	Max.
Grid No. 2 Voltage	See Rating Chart		
Grid No. 1 Voltage			
Positive Bias Value	0	0 Volts	Max.
Plate Dissipation	2.6	2.0 Watts	Max.
Grid No. 2 Input		0.5 Watts	Max.
Grid No. 1 Circuit Resistance[2]			
Fixed Bias	0.5	0.25 Megohm	Max.
Cathode Bias	1.0	1.0 Megohm	Max.

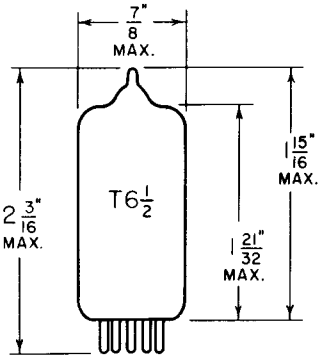
CHARACTERISTICS AND TYPICAL OPERATION

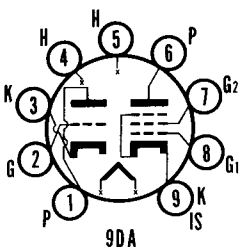
	Triode Section	Pentode Section
Plate Supply Voltage	200	200 Volts
Grid No. 2 Supply Voltage		150 Volts
Grid No. 1 Voltage	−6	Volts
Cathode Bias Resistor		180 Ohms
Plate Current	13	9.5 Ma
Grid No. 2 Current		2.8 Ma
Transconductance	3300	6200 μmhos
Amplification Factor	19	
Plate Resistance (Approx.)	5750	300,000 Ohms
Grid No. 1 Voltage for Ib = 10μa (Approx.)	−19	−8 Volts

QUICK REFERENCE DATA

The Sylvania Types 5AN8, 6AN8 and 6AN8A have a medium mu triode and sharp cutoff pentode contained in one envelope. The pentode section may be used as a reactance tube, IF, video or AGC amplifier. The triode section may be used as a low frequency oscillator, sync clipper, sync separator or phase splitter.

Types 5AN8 and 6AN8A have controlled heater warm-up time for series string operation.





SYLVANIA ELECTRIC PRODUCTS INC.

RADIO TUBE DIVISION
EMPORIUM, PA.

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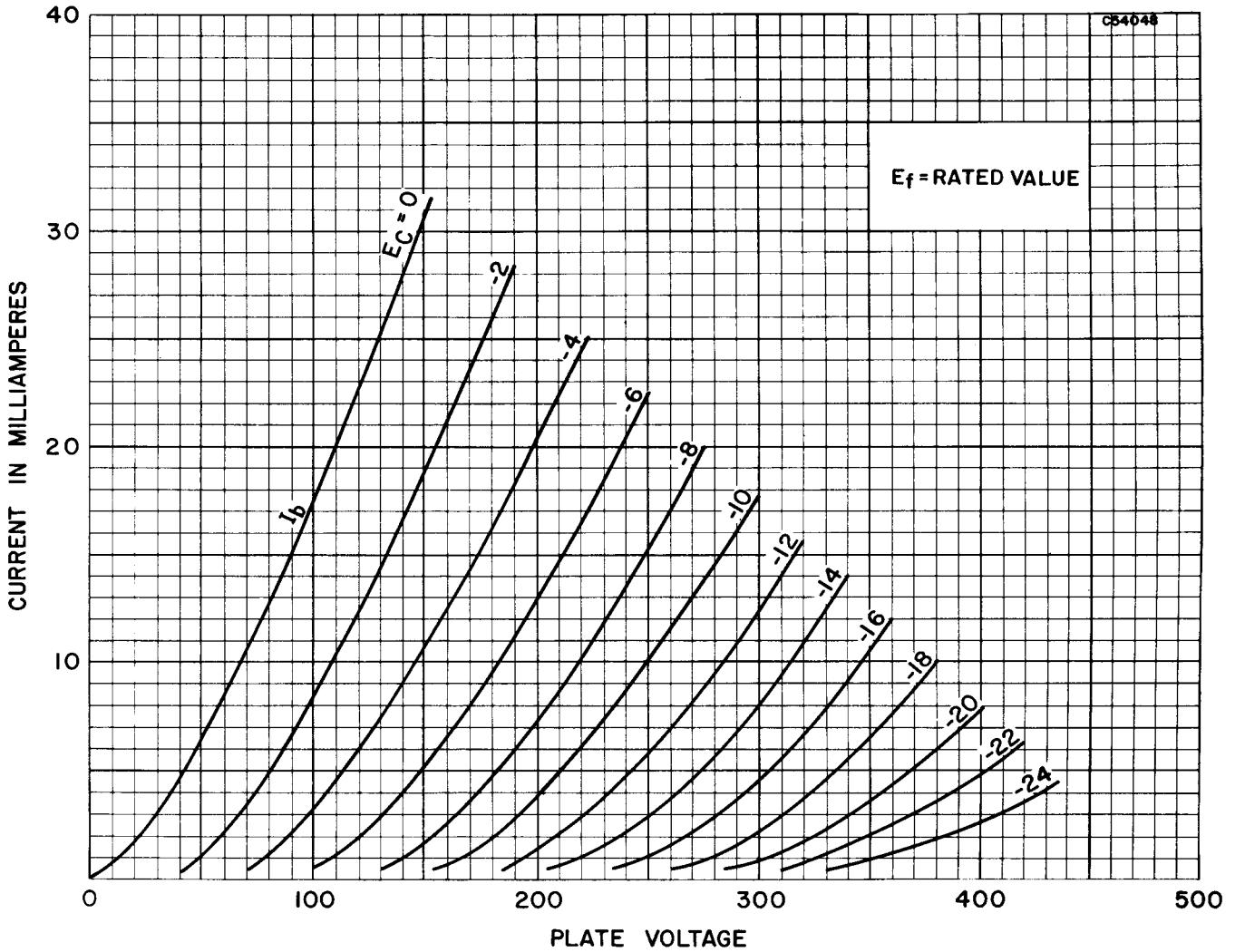
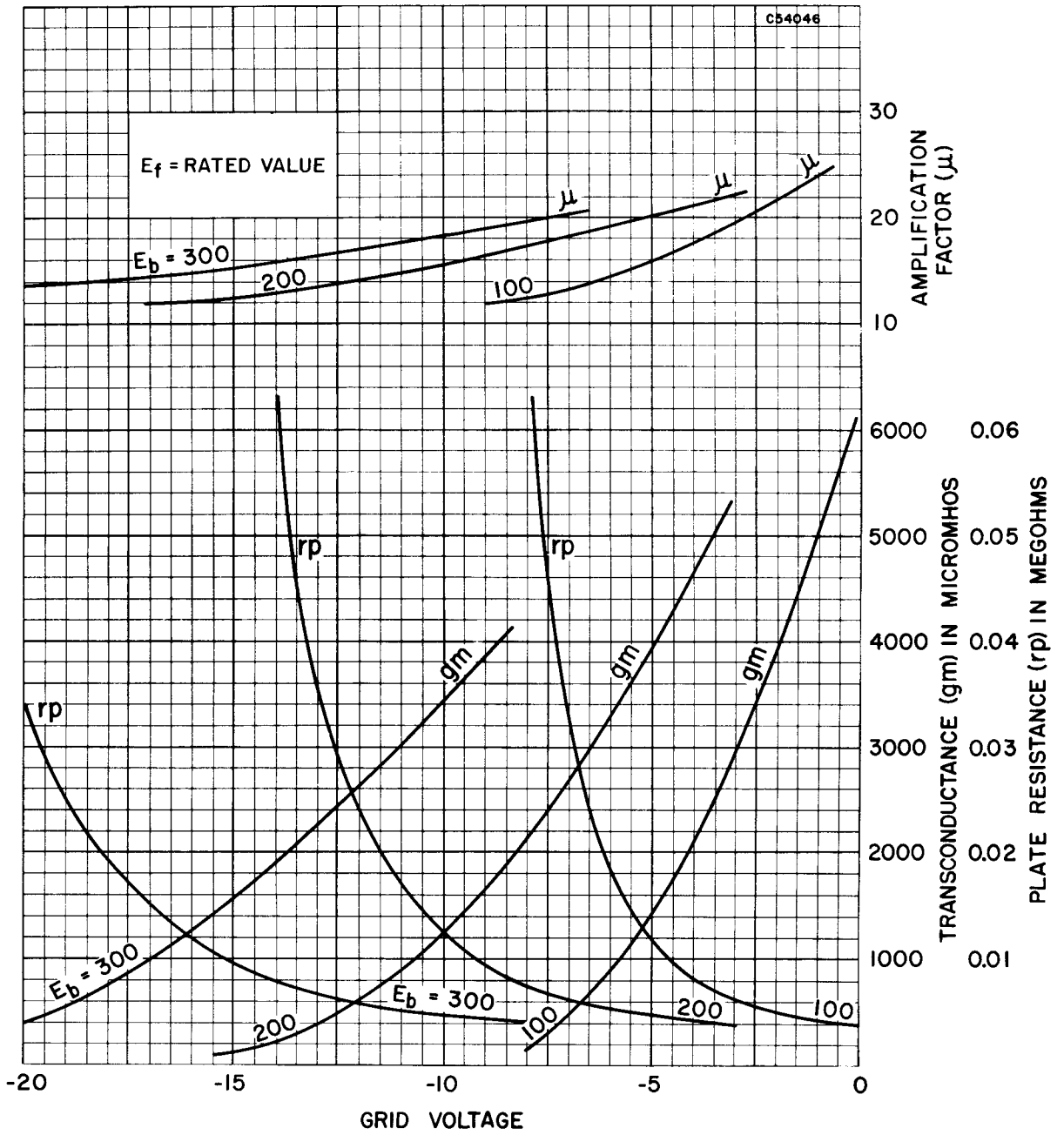
NOTES:

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. *If either section is operating at maximum rated conditions, the grid No. 1 circuit resistance for both sections should not exceed the stated values.*

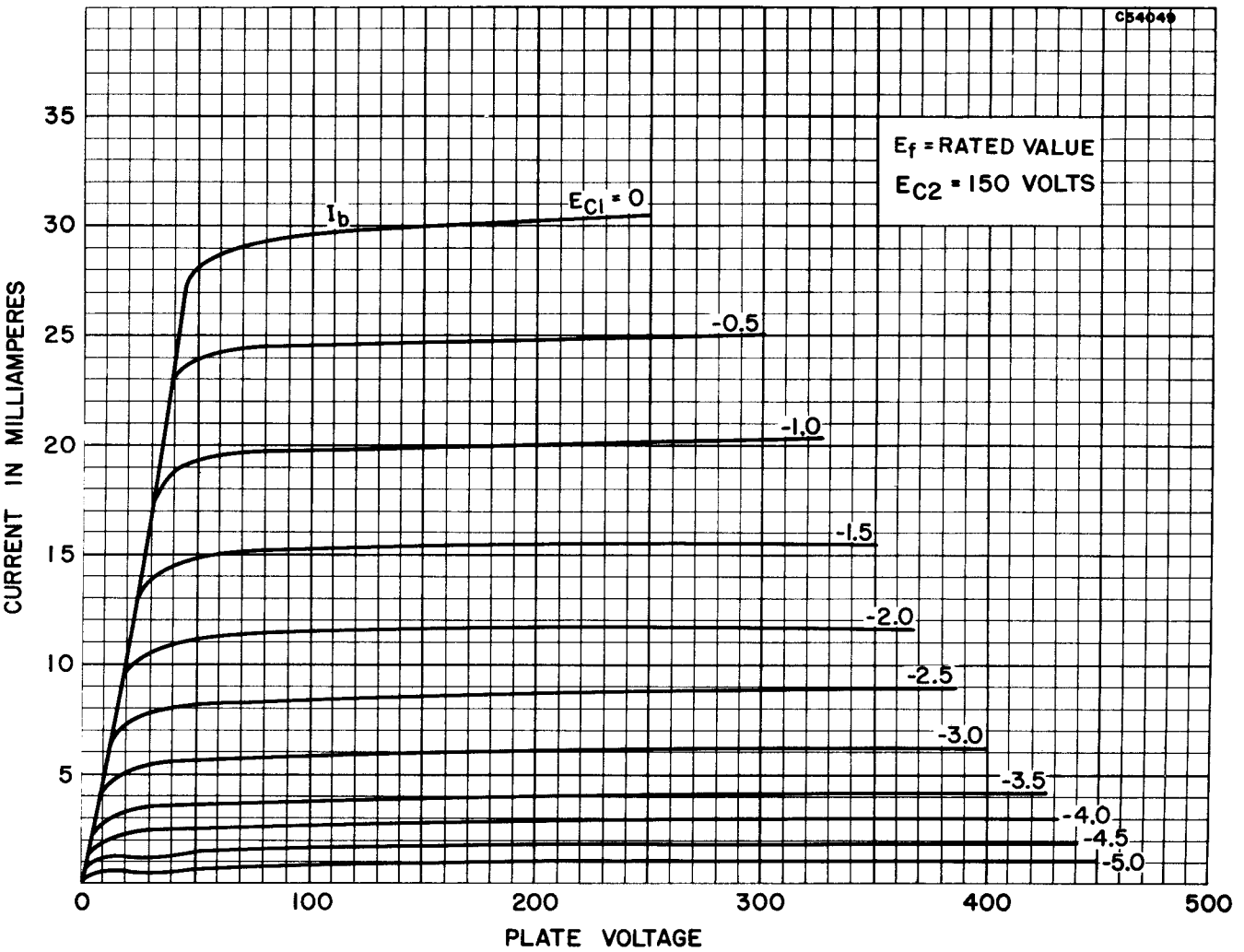
AVERAGE PLATE CHARACTERISTICS
(TRIODE SECTION)



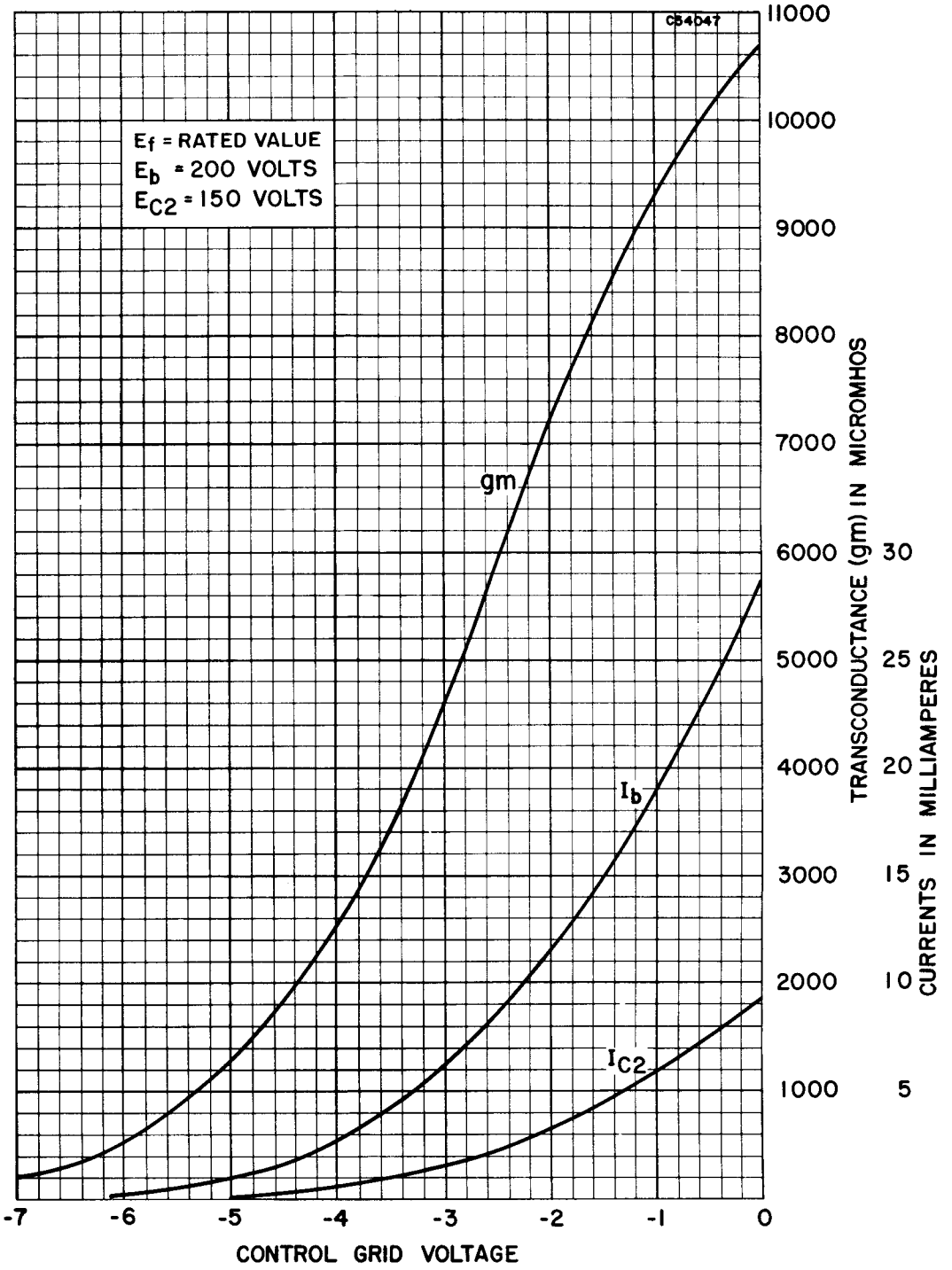
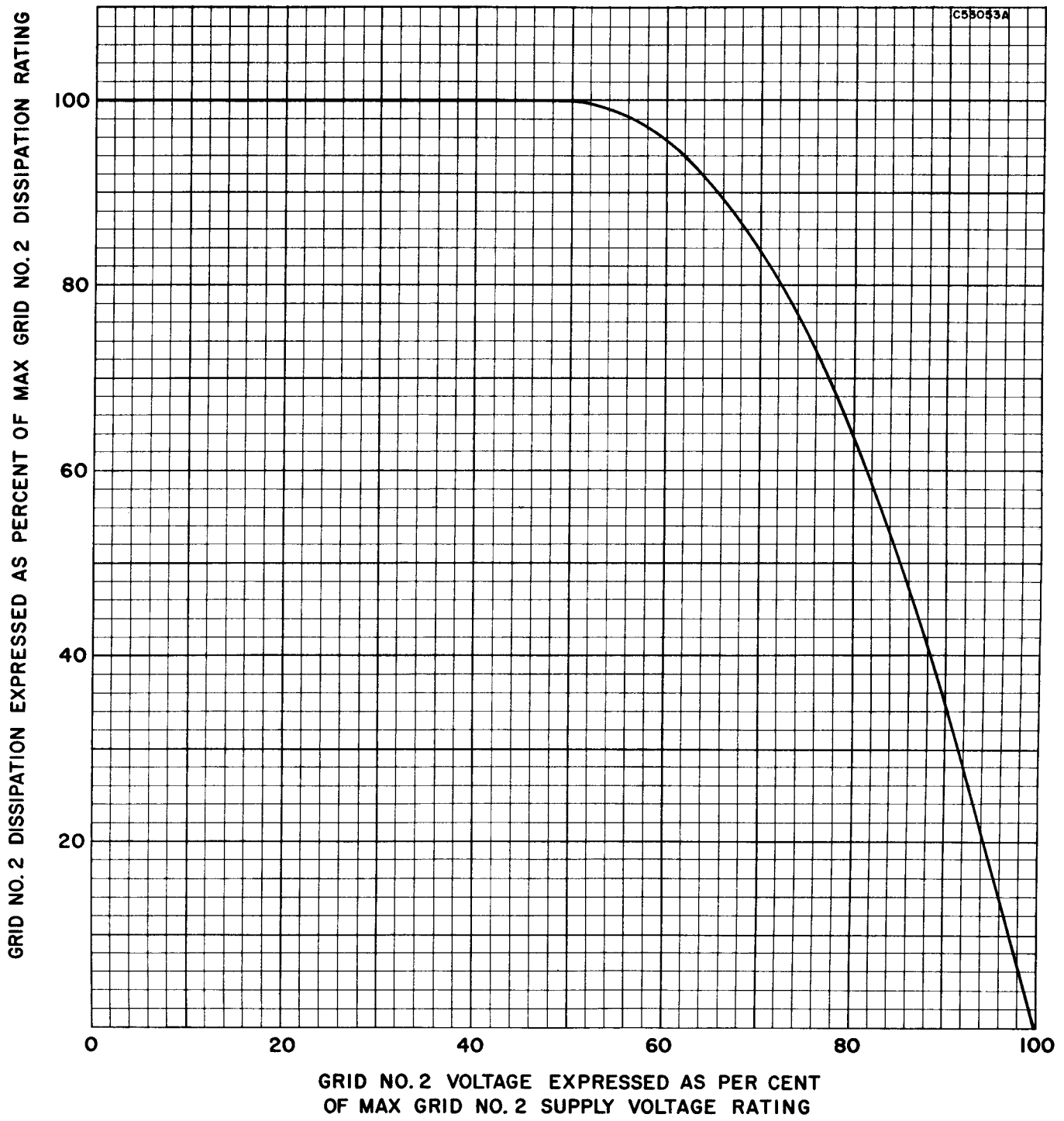
AVERAGE TRANSFER CHARACTERISTICS
(TRIODE SECTION)



AVERAGE PLATE CHARACTERISTICS
(PENTODE SECTION)



AVERAGE TRANSFER CHARACTERISTICS
(PENTODE SECTION)



RATING CHART