

### MECHANICAL DATA

Bulb . . . . .	T-6 1/2
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 <sup>1</sup> . . . . .	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 $\mu\text{mf}$	
Input . . . . .		2.0 $\mu\text{mf}$	
Output . . . . .		0.27 $\mu\text{mf}$	
Pentode Section			
Grid No. 1 to Plate . . . . .		0.04 $\mu\text{mf}$	Max.
Input . . . . .		7.0 $\mu\text{mf}$	
Output . . . . .		2.3 $\mu\text{mf}$	
Coupling			
Triode Grid to Pentode Plate . . . . .		0.005 $\mu\text{mf}$	
Pentode Grid No. 1 to Triode Plate . . . . .		0.006 $\mu\text{mf}$	
Pentode Plate to Triode Plate . . . . .		0.045 $\mu\text{mf}$	

### 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 <sup>2</sup>			
Fixed Bias . . . . .	0.5	0.25 Megohm	Max.
Cathode Bias . . . . .	1.0	1.0 Megohm	Max.

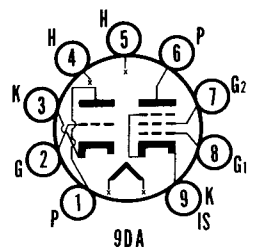
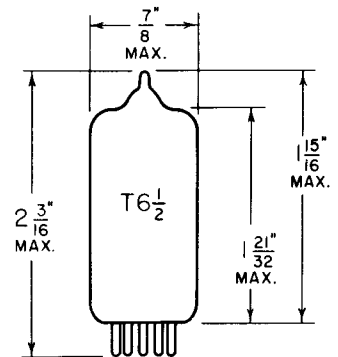
### CHARACTERISTICS AND TYPICAL OPERATION

	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 $\mu\text{mhos}$
Amplification Factor . . . . .	19	
Plate Resistance (Approx.) . . . . .	5750	300,000 Ohms
Grid No. 1 Voltage for $I_b = 10\mu\text{a}$ (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.**

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

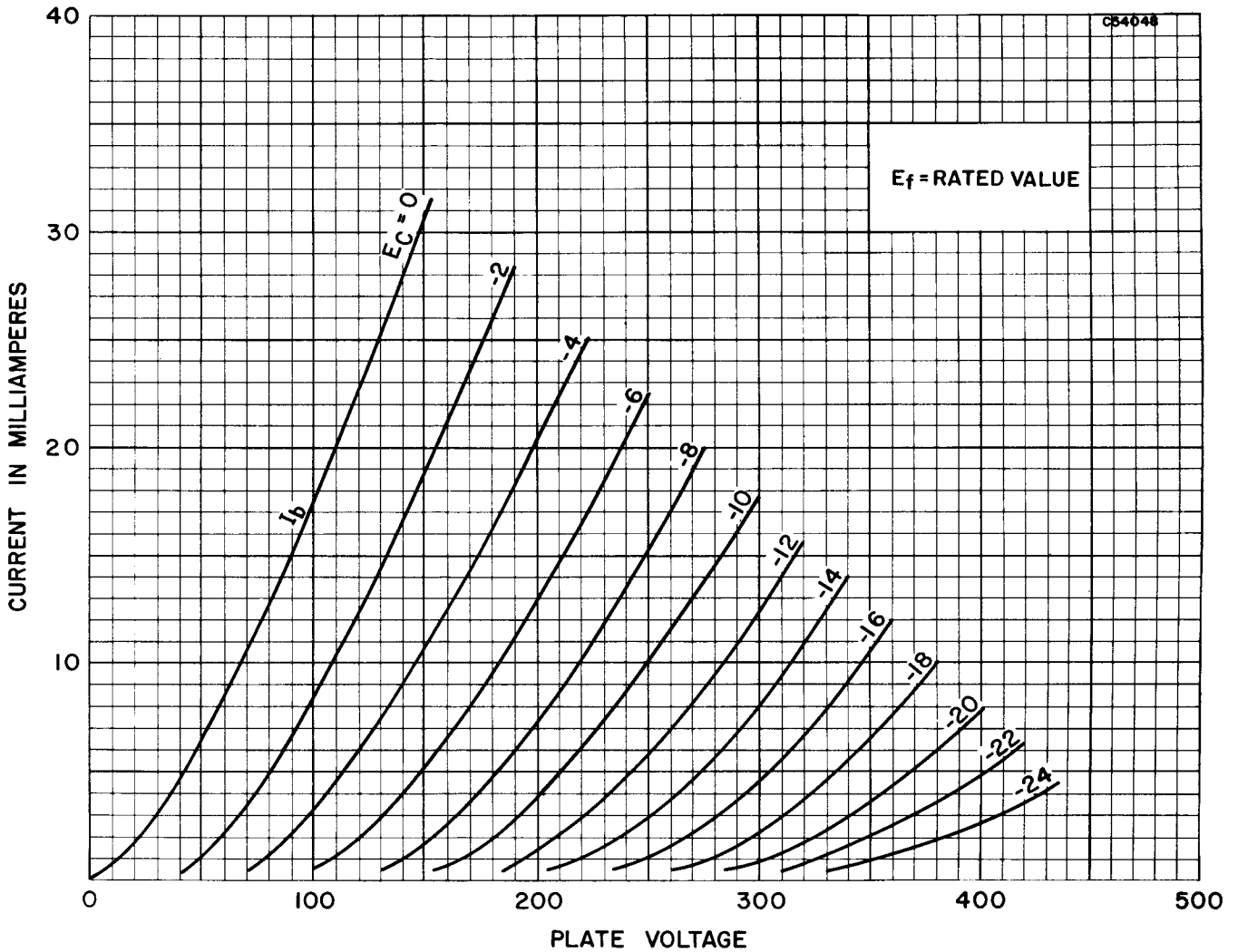
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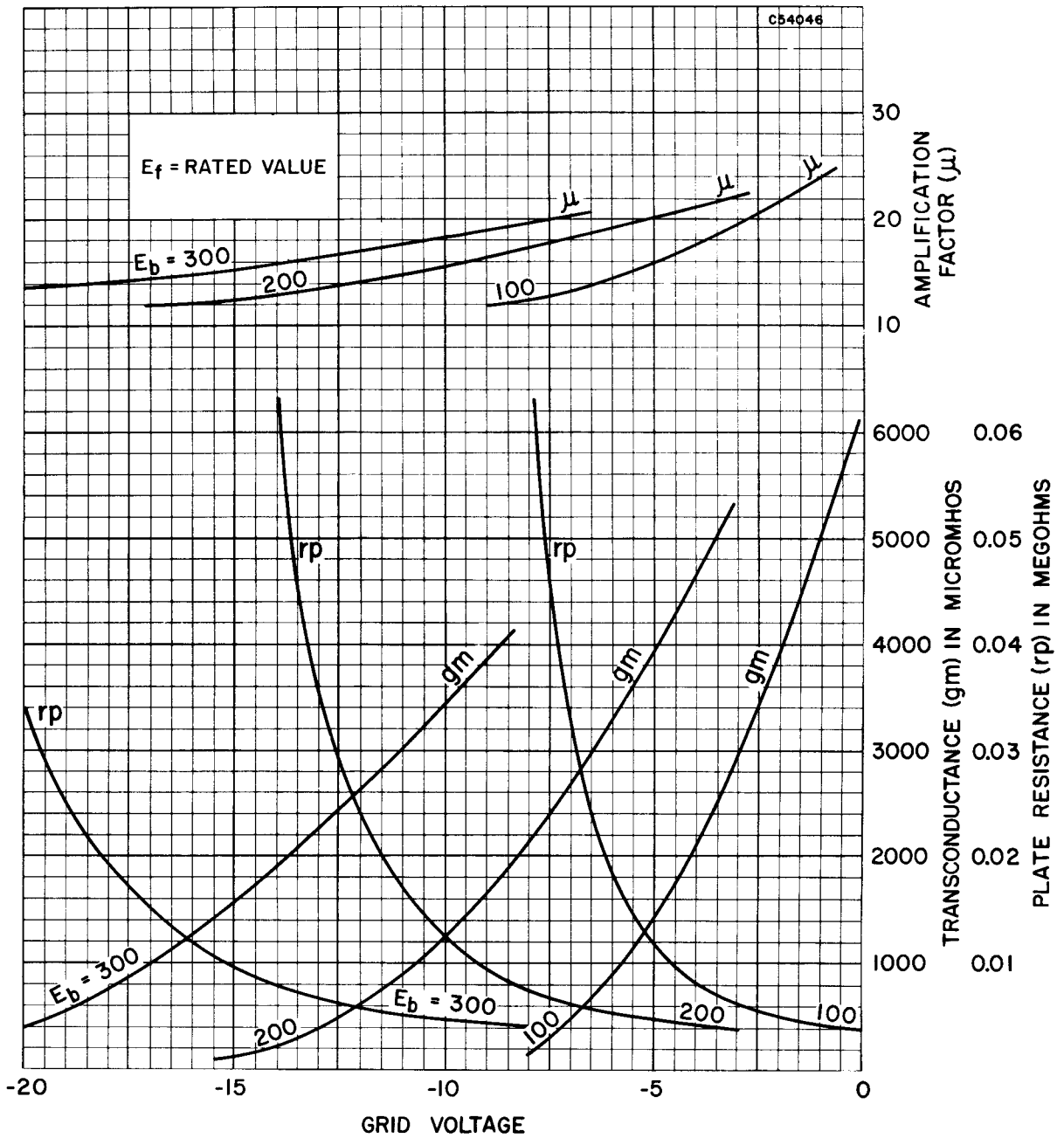
NOTES:

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.

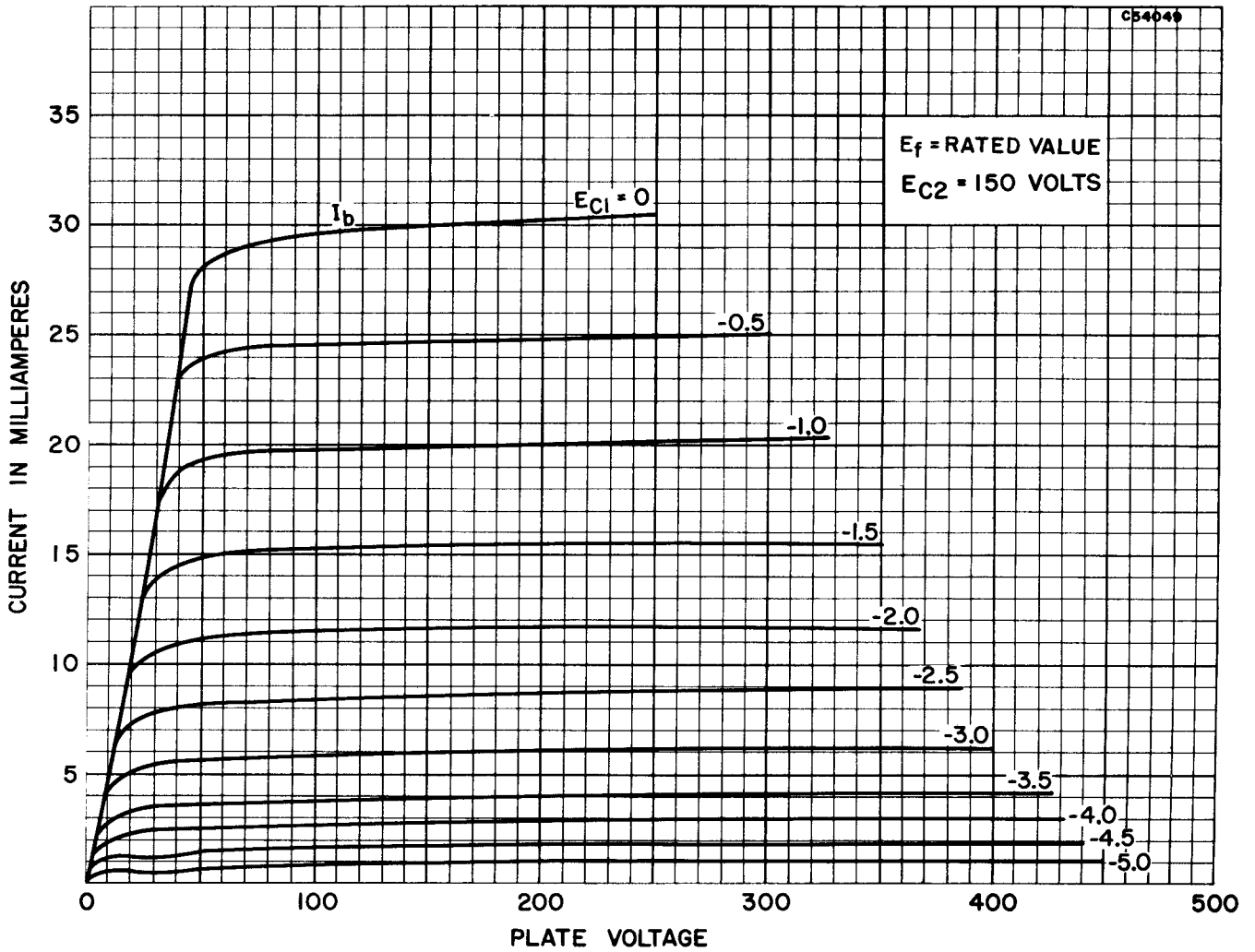
AVERAGE PLATE CHARACTERISTICS  
(TRIODE SECTION)



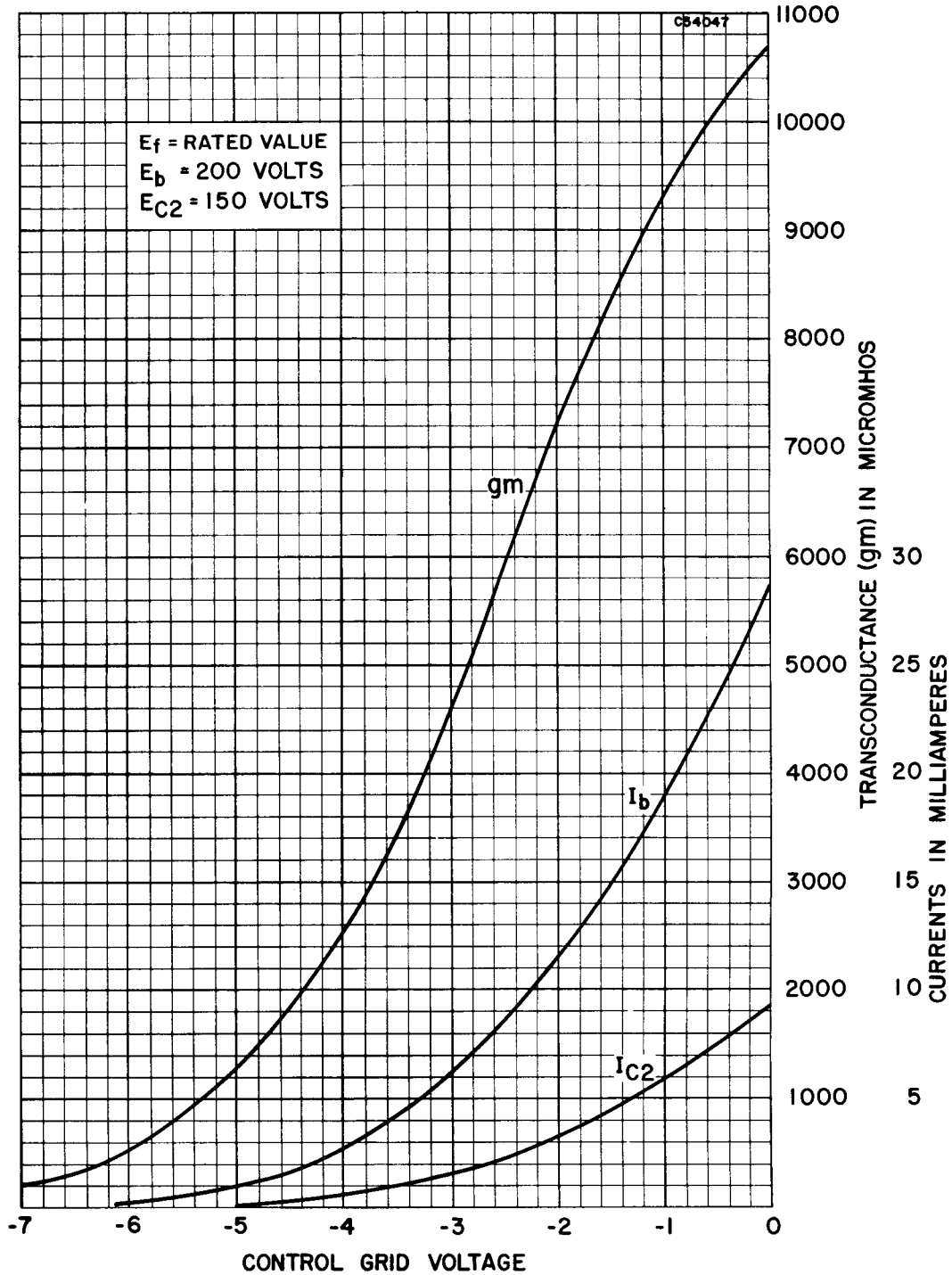
AVERAGE TRANSFER CHARACTERISTICS  
(TRIODE SECTION)



AVERAGE PLATE CHARACTERISTICS  
(PENTODE SECTION)



AVERAGE TRANSFER CHARACTERISTICS  
(PENTODE SECTION)



RATING CHART

