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engineering data service

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12AD7

The Sylvania Type 12AD7 is a High Mu Double triode rigorously controlled to provide hum and microphonic free operation in low level audio preamplifier service.

MECHANICAL DATA

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

ELECTRICAL DATA

HEATER CHARACTERISTICS

	Series	Parallel	
Heater Voltage (ac or dc)	12.6	6.3 Volts	
Heater Current	225	450 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 (Approx.)[1]

	Shielded[2]		Unshielded		
	Triode No. 1	Triode No. 2	Triode No. 1	Triode No. 2	
Grid to Plate	1.8	1.8	1.8	1.8	μμf
Input: g to (h+k+i.s.+e.s.)	1.7	1.7	1.6	1.6	μμf
Output: p to (h+k+i.s.+e.s.)	1.6	1.9	0.50	0.45	μμf

RATINGS (Design Center Values) Each Section

Plate Voltage	300 Volts	Max.
Plate Dissipation	1.0 Watt	Max.
Positive DC Grid Voltage	0 Volts	Max.
Negative DC Grid Voltage	50 Volts	Max.

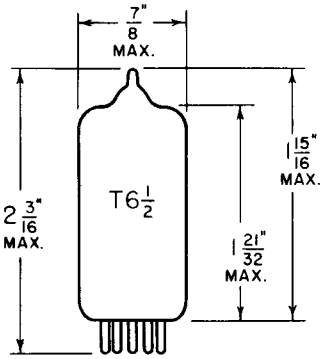
CHARACTERISTICS AND TYPICAL OPERATION

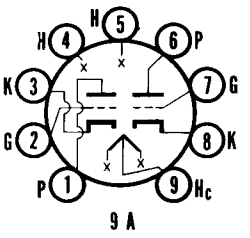
Class A_1 Amplifier—Each Section

Plate Voltage	250 Volts
Grid Voltage	−2 Volts
Plate Current	1.25 Ma
Plate Resistance	62500 Ohms
Transconductance	1600 μmhos
Amplification Factor	100

QUICK REFERENCE DATA

The Sylvania Type 12AD7 is a miniature, non-microphonic, high Mu double triode for audio preamplifier use. The 12AD7 features a specified maximum hum output level.





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SYLVANIA ELECTRIC PRODUCTS INC.

RADIO TUBE DIVISION
EMPORIUM, PA.

Prepared and Released By The TECHNICAL PUBLICATIONS SECTION EMPORIUM, PENNSYLVANIA

JULY 1956

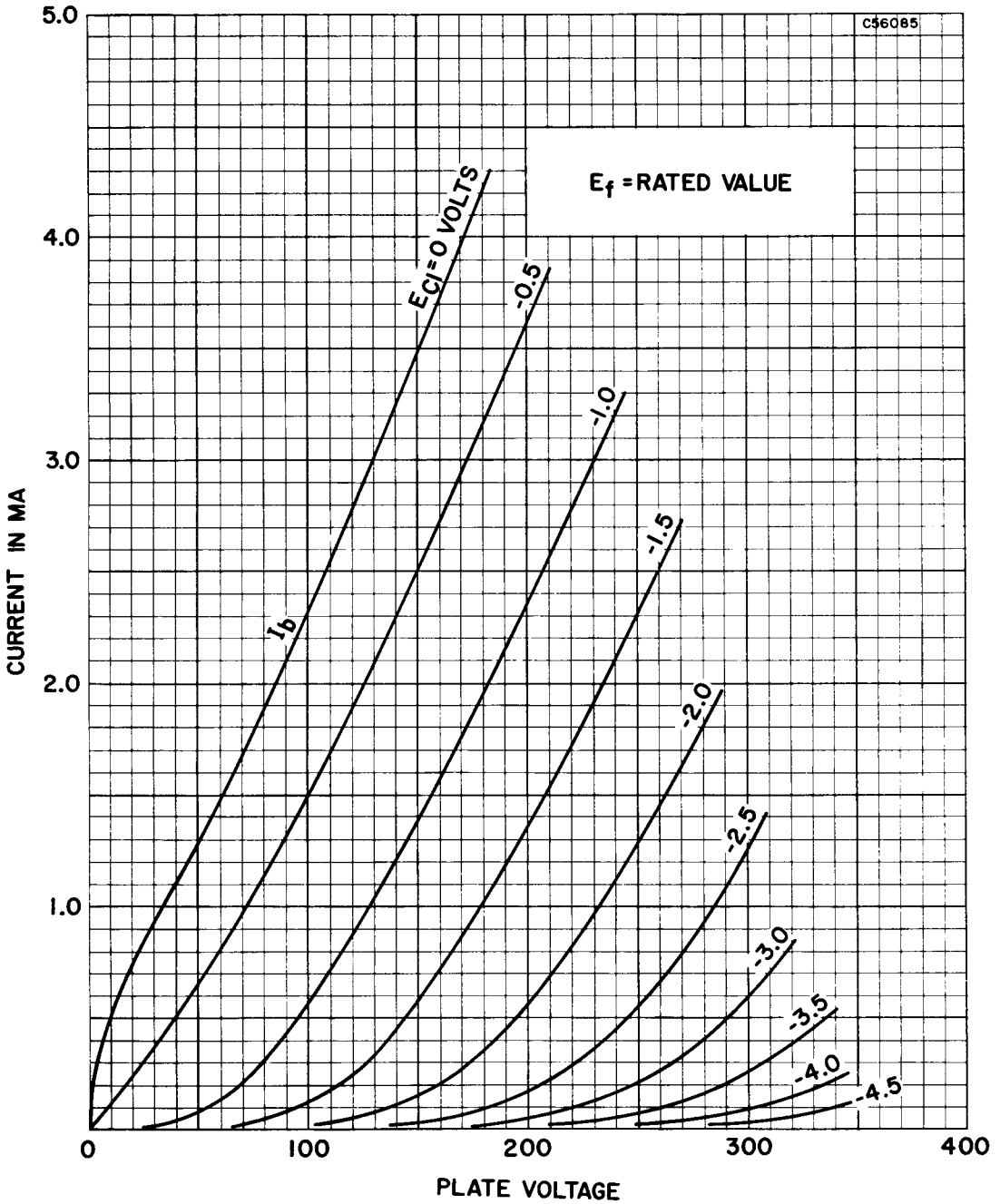
Resistance Coupled Amplifier—Each Section

Heater Voltage[3]	6.3 Volts
Plate Supply Voltage	250 Volts
Unbypassed Cathode Resistance	3300 Ohms
Grid Circuit Resistance	470000 Ohms
Plate Load Resistance	270000 Ohms
RMS Hum Level at Plate, Max.	3.0 Millivolts

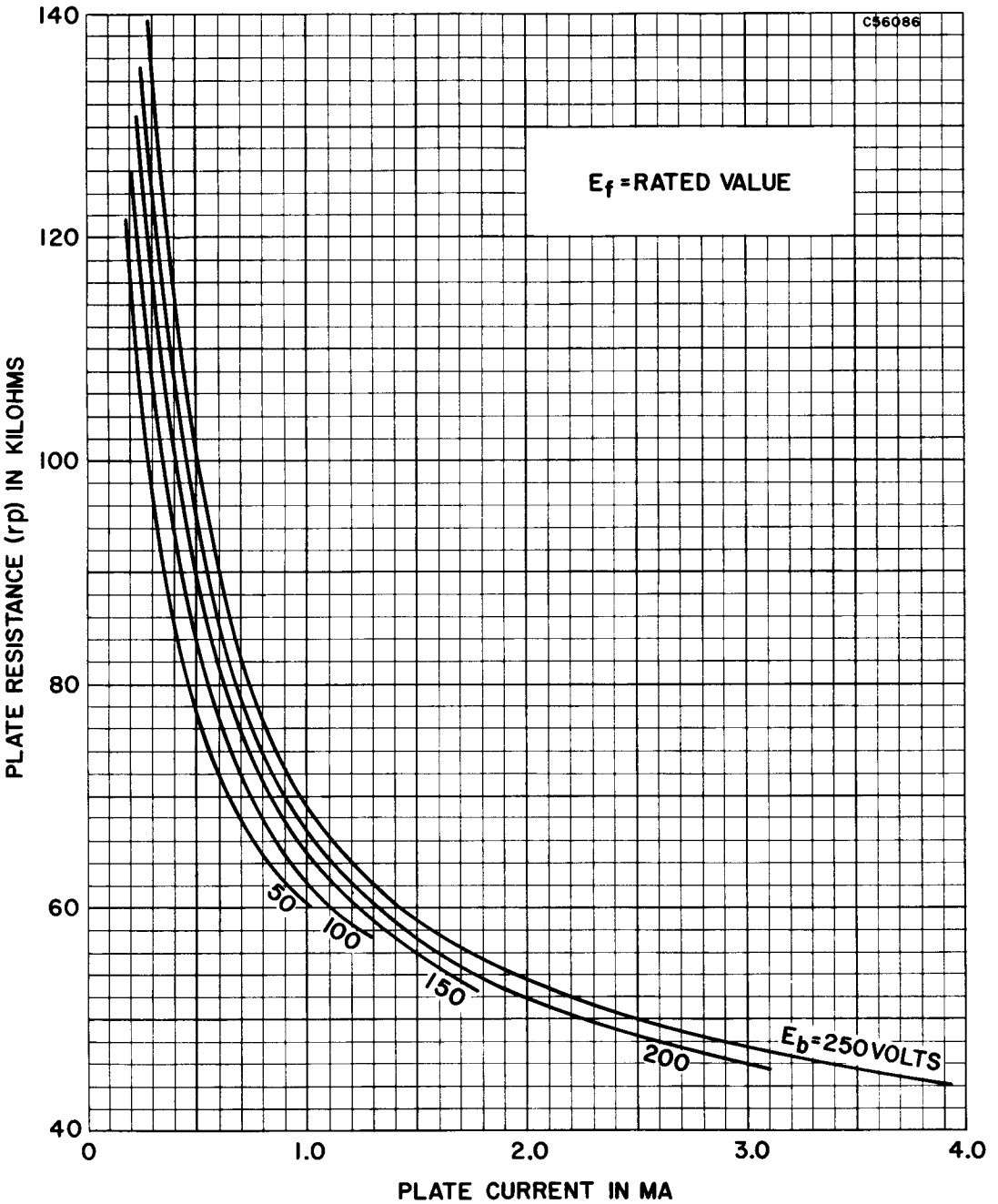
NOTES:

1. *Section No. 1 connects to Pins 6, 7 and 8.*
   Section No. 2 connects to Pins 1, 2 and 3.
2. *Shield No. 315.*
3. *The heater sections are operated in parallel from a 6.3 volt supply balanced to ground.*

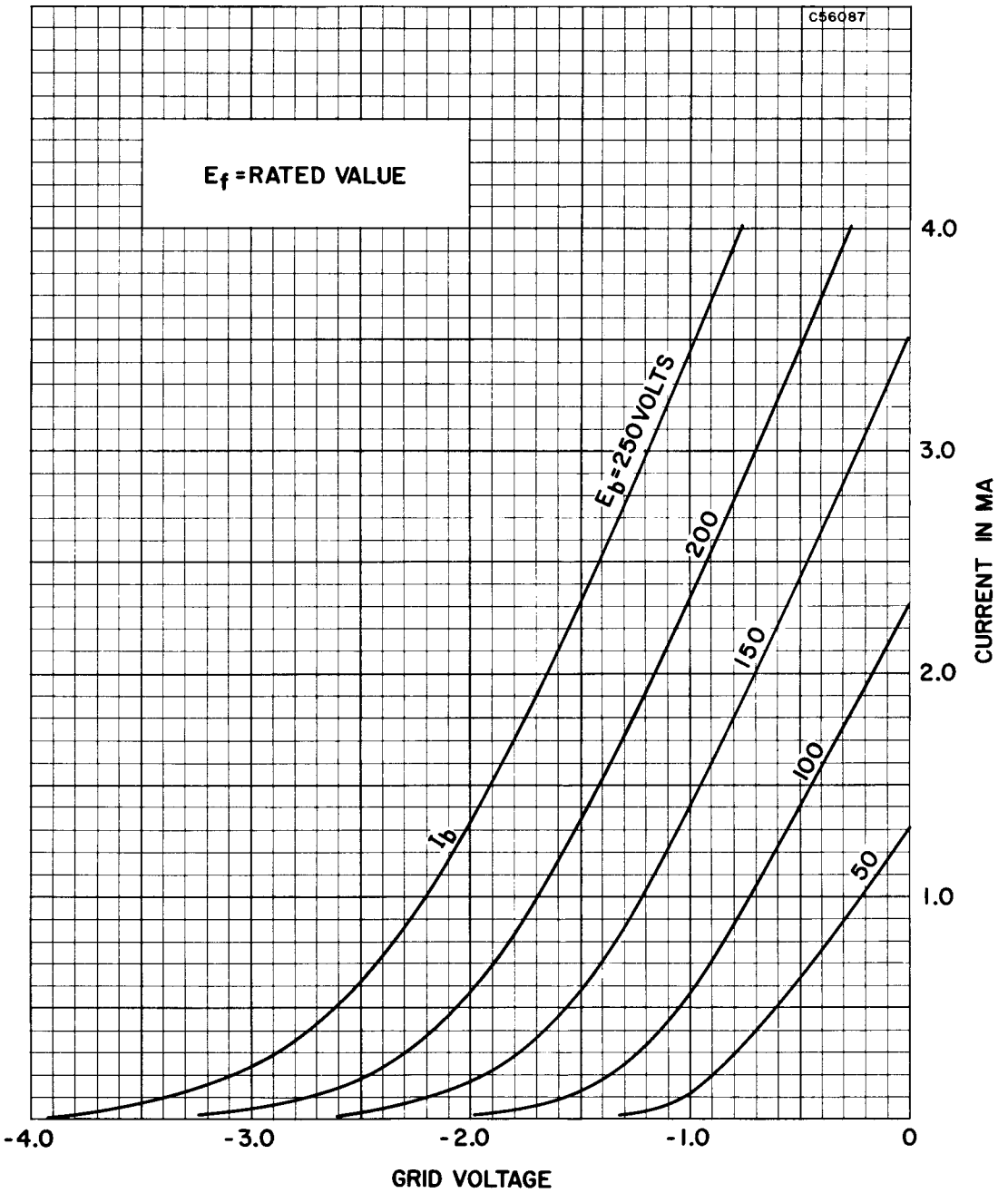
AVERAGE PLATE CHARACTERISTICS



AVERAGE TRANSFER CHARACTERISTICS



AVERAGE TRANSFER CHARACTERISTICS



AVERAGE TRANSFER CHARACTERISTICS