

**MECHANICAL DATA**

Bulb . . . . .	T-5½
Base . . . . .	E7-1, Miniature Button 7-Pin
Outline . . . . .	5-1
Basing . . . . .	7DK
Cathode . . . . .	Coated Unipotential
Mounting Position . . . . .	Any

**ELECTRICAL DATA**

**HEATER CHARACTERISTICS AND RATINGS**

**Characteristics**

Heater Voltage <sup>1</sup> . . . . .	6.3 Volts
Heater Current <sup>2</sup> . . . . .	225 Ma

**Ratings (Design Maximum Values)**

Heater Voltage <sup>3</sup> . . . . .	6.3 ± 0.6 Volts
---------------------------------------	-----------------

**Maximum Heater-Cathode Voltage**

<b>Heater Negative with Respect to Cathode</b>	
Total DC and Peak . . . . .	200 Volts Max.
<b>Heater Positive with Respect to Cathode</b>	
DC . . . . .	100 Volts Max.
Total DC and Peak . . . . .	200 Volts Max.

**DIRECT INTERELECTRODE CAPACITANCES (Shielded) <sup>4</sup>**

Grid to Plate . . . . .	1.7 μμf
Input: g to (h+k) . . . . .	3.0 μμf
Output: p to (h+k) . . . . .	1.8 μμf
Heater to Cathode . . . . .	3.0 μμf

**RATINGS (Design Maximum Values)**

**Continuous Class C Service at 175 mc.**

Plate Voltage . . . . .	330 Volts	Max.
Plate Dissipation . . . . .	5.0 Watts	Max.
Plate Input . . . . .	7.5 Watts	Max.
Cathode Current <sup>5</sup> . . . . .	40 mAdc	Max.
Grid Current <sup>5</sup> . . . . .	10 mAdc	Max.
Negative Grid Voltage . . . . .	50 Volts	Max.
<b>Grid Circuit Resistance</b>		
Fixed Bias . . . . .	0.1 Megohm	Max.
Cathode Bias . . . . .	0.5 Megohm	Max.

**CHARACTERISTICS AND TYPICAL OPERATION**

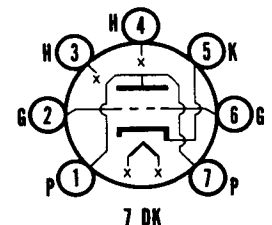
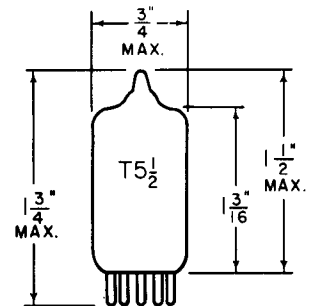
Plate Voltage . . . . .	200 Volts
Grid Voltage . . . . .	0 Volts
Cathode Bias Resistor . . . . .	100 Ohms
Plate Current . . . . .	12 Ma
Transconductance . . . . .	9500 μmhos
Amplification Factor . . . . .	80
Ec for Ib = 20 μAdc (Approx.) . . . . .	-6.5 Volts

**NOTES:**

1. For parallel operation of heaters, equipment should be designed that at normal supply voltage bogey tubes will operate at this value of heater voltage.
2. The bogey value of current is obtained when operating the heater at the specified 6.3 volts.
3. Heater voltage supply variations shall be restricted to maintain heater voltage within the specified tolerance.
4. Shield No. 316.
5. In Sonobow or other battery applications where considerations of long life are secondary to those of power output, the maximum ratings for cathode current and grid current may be taken as 50 mAdc and 15 mAdc respectively.

**QUICK REFERENCE DATA**

The Sylvania Type 7738 is a miniature high mu triode designed for Continuous Class C Amplifier Service in the 200 megacycle range.



**SYLVANIA ELECTRONIC TUBES**

A Division of  
Sylvania Electric Products Inc.

**RECEIVING TUBE OPERATIONS EMPORIUM, PA.**

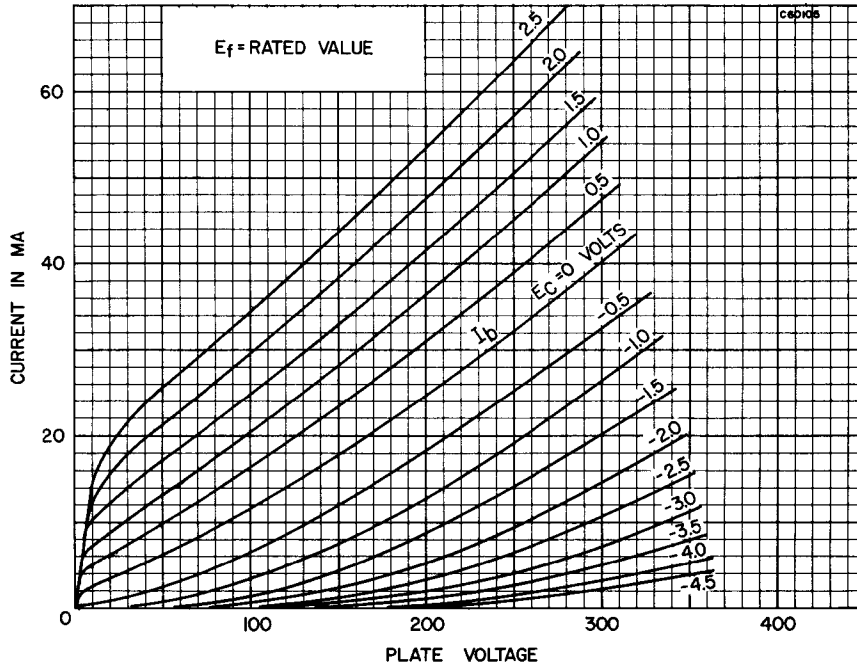
Prepared and Released By The  
TECHNICAL PUBLICATIONS SECTION  
EMPORIUM, PENNSYLVANIA

AUGUST, 1960

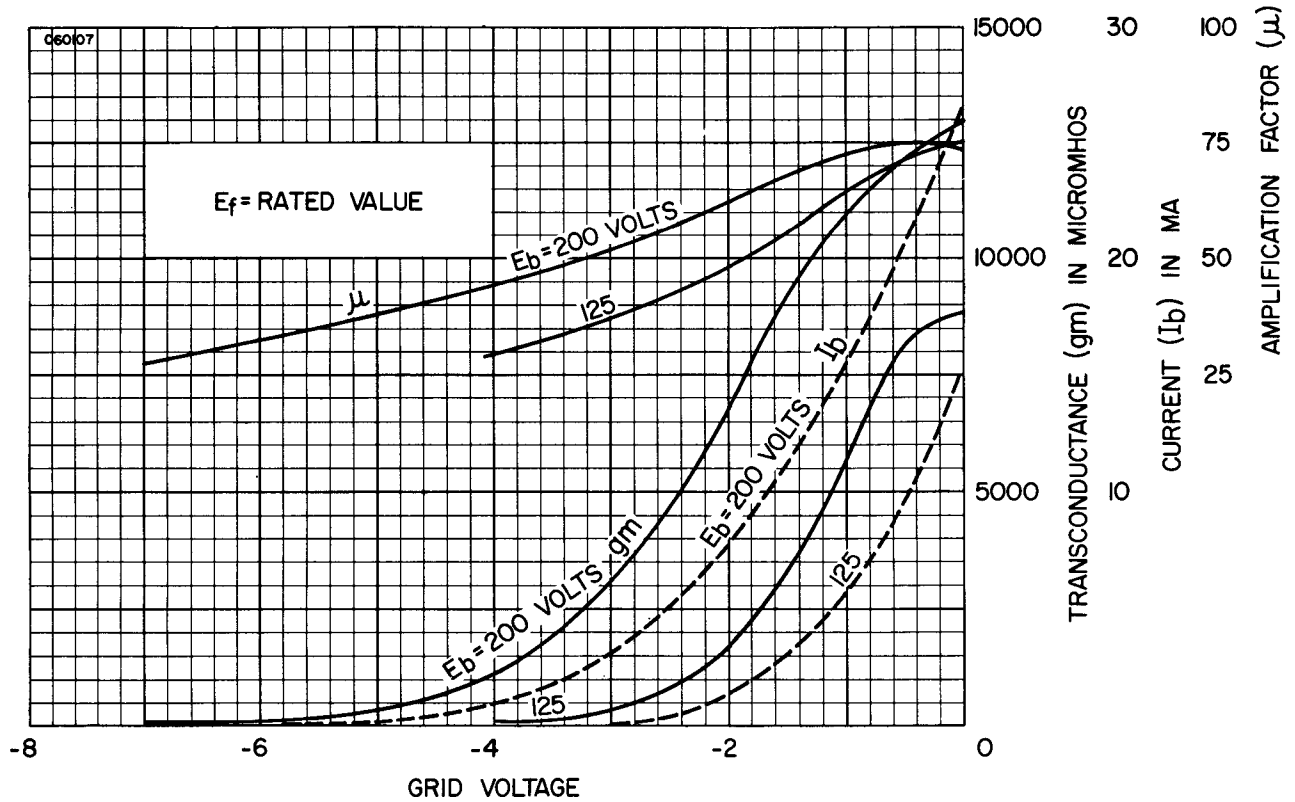
PAGE 1 OF 3

File Under  
RECEIVING TUBES

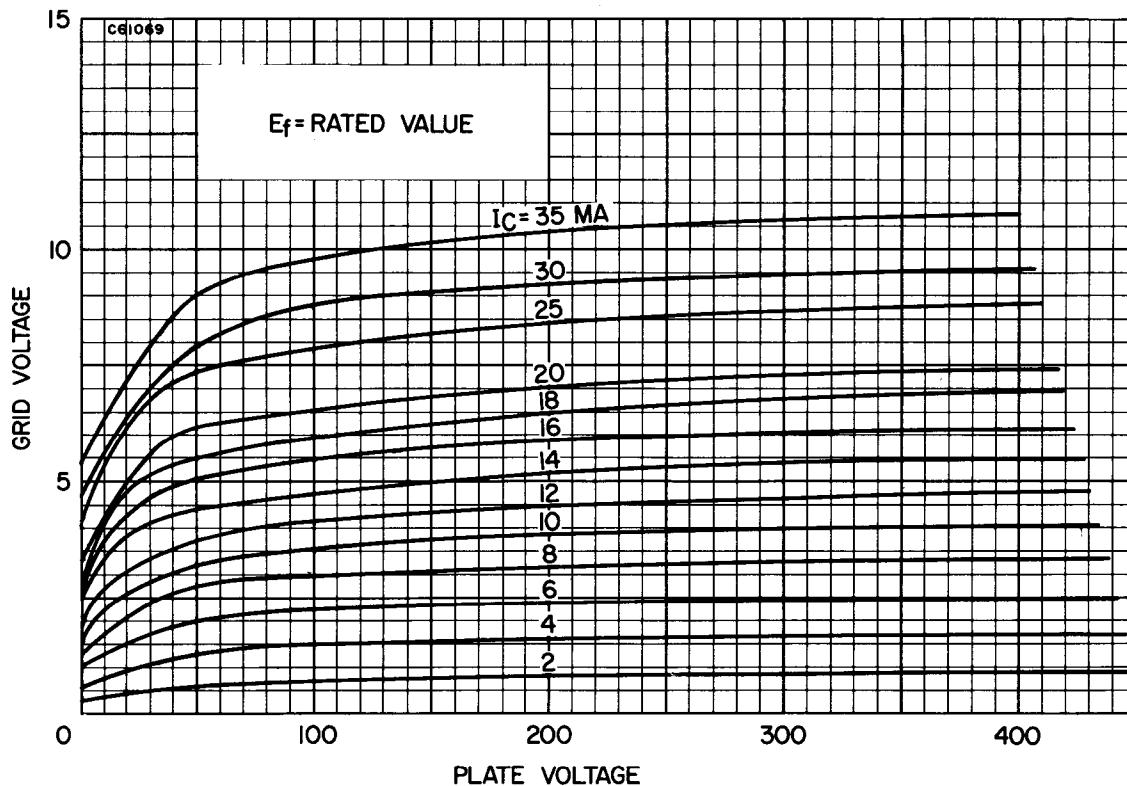
AVERAGE PLATE CHARACTERISTICS



AVERAGE TRANSFER CHARACTERISTICS



### AVERAGE GRID CHARACTERISTICS



### CONSTANT CURRENT CHARACTERISTICS

