

DESCRIPTION AND RATING

The 8068 is a beam pentode designed for use as a series regulator in high-voltage power supplies.

GENERAL

ELECTRICAL	MECHANICAL
Cathode—Coated Unipotential	Mounting Position—Any
Heater Characteristics and Ratings	Envelope—T12, Glass
Heater Voltage, AC or DC* 6.3 ± 0.6 Volts	Base—B5-149, Octal 8-Pin
Heater Current † 0.9 Amperes	Top Cap—C1-1, Small
Direct Interelectrode Capacitances ‡	Outline Drawing—EIA 12-20
Grid to Plate: (g to p) 0.6 pf	Maximum Diameter 1 ⁹ / ₁₆ Inches
Input: g to (h + k + g2 + b.p.) . . . 10.0 pf	Maximum Over-all Length 4 ⁵ / ₈ Inches
Output: p to (h + k + g2 + b.p.) . . . 5.5 pf	Maximum Seated Height 4 ¹ / ₁₆ Inches
	Minimum Seated Height 3 ¹ / ₁₆ Inches

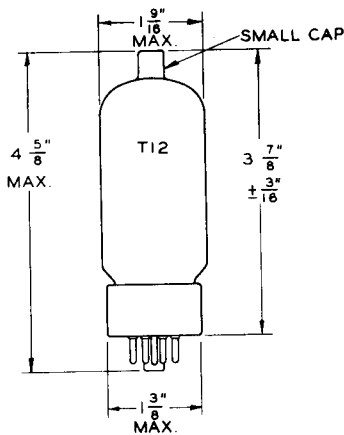
MAXIMUM RATINGS

ABSOLUTE-MAXIMUM VALUES

Plate Voltage 3500	Volts
Screen Voltage 250	Volts
Plate Dissipation 35	Watts
Screen Dissipation 1.0	Watts
DC Cathode Current 100	Milliamperes

Heater-Cathode Voltage	
Heater Positive with Respect to	
Cathode 200	Volts
Heater Negative with Respect to	
Cathode 200	Volts
Grid-Number 1 Circuit Resistance 0.1	Megohms

PHYSICAL DIMENSIONS

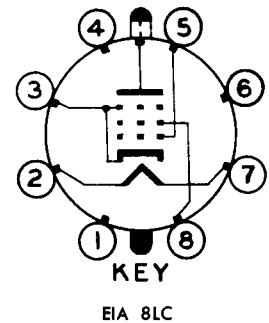


EIA 12-20

TERMINAL CONNECTIONS

- Pin 1—No Connection
- Pin 2—Heater
- Pin 3—Cathode and Beam Plates
- Pin 4—No Connection
- Pin 5—Grid Number 1
- Pin 6—No Connection
- Pin 7—Heater
- Pin 8—Grid Number 2 (Screen)
- Cap—Plate

BASING DIAGRAM



AVERAGE CHARACTERISTICS

Plate Voltage	3500	600	Volts
Screen Voltage	100	125	Volts
Grid-Number 1 Voltage	-30	-7.5	Volts
Plate Resistance, approximate	54500		Ohms
Transconductance	5200		Micromhos
Plate Current	1.0	36	Milliamperes

Screen Current 1.0 Milliamperes

* The equipment designer should design the equipment so that the heater voltage is centered at the specified bogey value, with heater supply variations restricted to maintain heater voltage within the specified tolerance.

† Heater current of a bogey tube at $E_f = 6.3$ volts.

‡ Without external shield.

Absolute-Maximum ratings are limiting values of operating and environmental conditions applicable to any electron tube of a specified type as defined by its published data and should not be exceeded under the worst probable conditions.

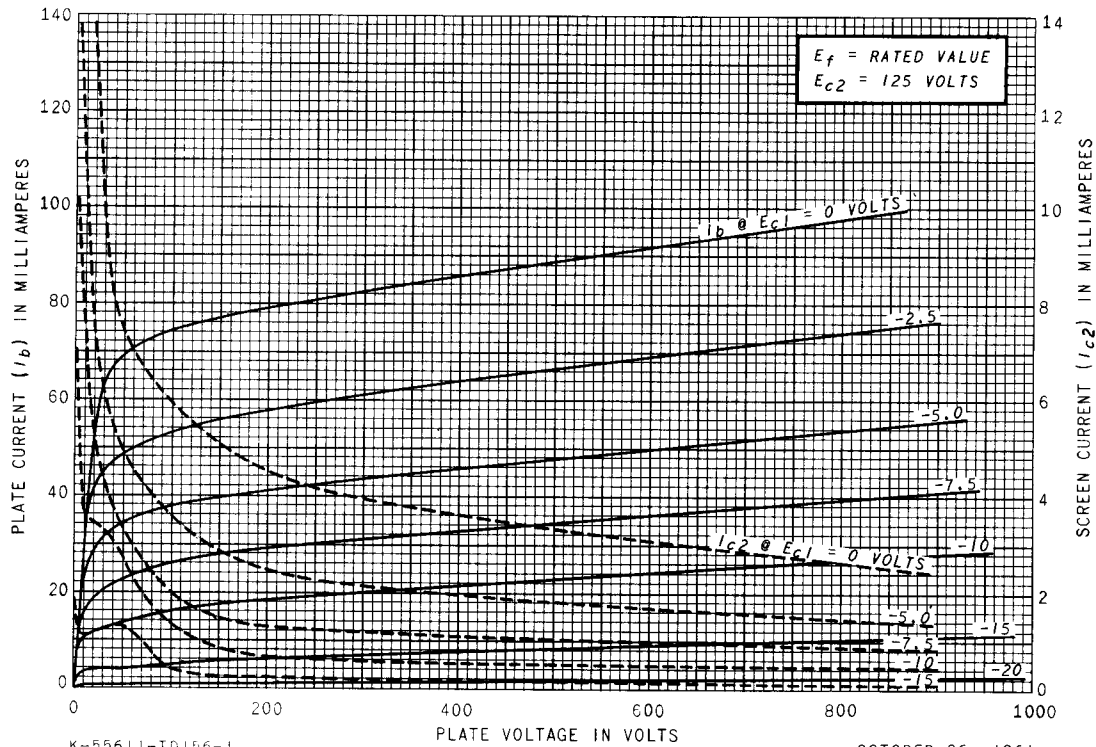
The tube manufacturer chooses these values to provide acceptable serviceability of the tube, making no allowance for equipment variations, environmental variations, and the effects of changes in operating conditions due to variations in the characteristics of the tube under consideration and of all other electron devices in the equipment.

The equipment manufacturer should design so that initially and throughout life no absolute-maximum value for the intended service is exceeded with any tube under the worst probable operating conditions with respect to supply-voltage variation, equipment component variation, equipment control adjustment, load variation, signal variation, environmental conditions, and variations in the characteristics of the tube under consideration and of all other electron devices in the equipment.

The tubes and arrangements disclosed herein may be covered by patents of General Electric Company or others. Neither the disclosure of any information herein nor the sale of tubes by General Electric Company conveys any license under patent claims covering combinations of tubes with other devices or

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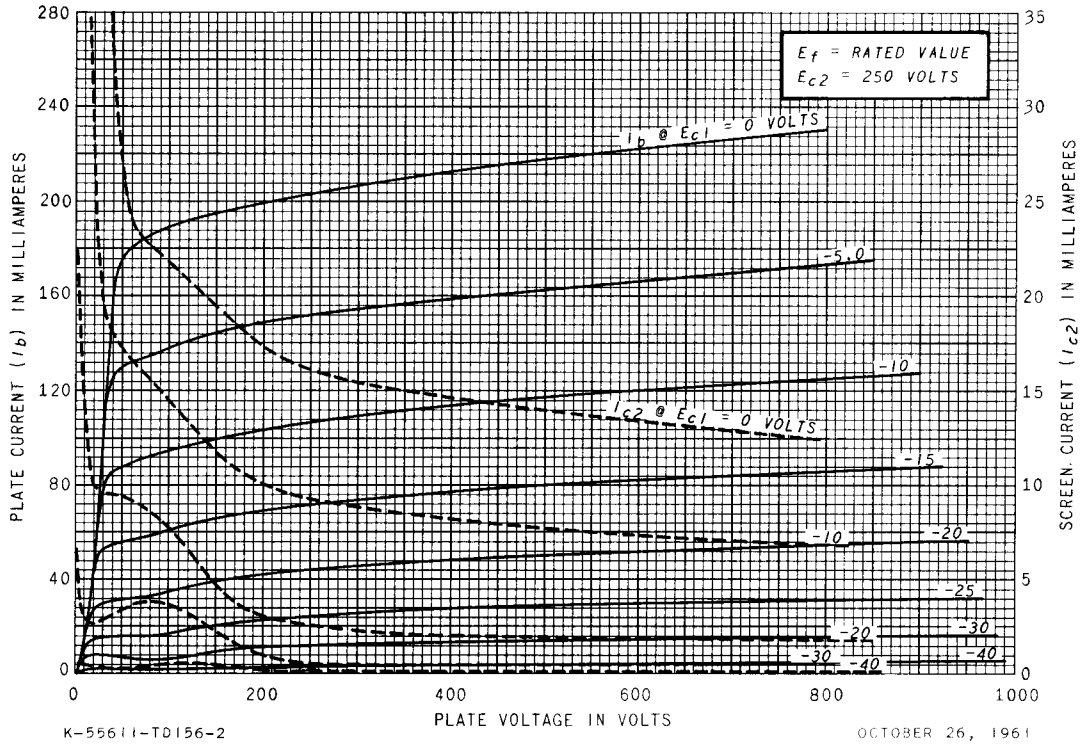
AVERAGE PLATE CHARACTERISTICS



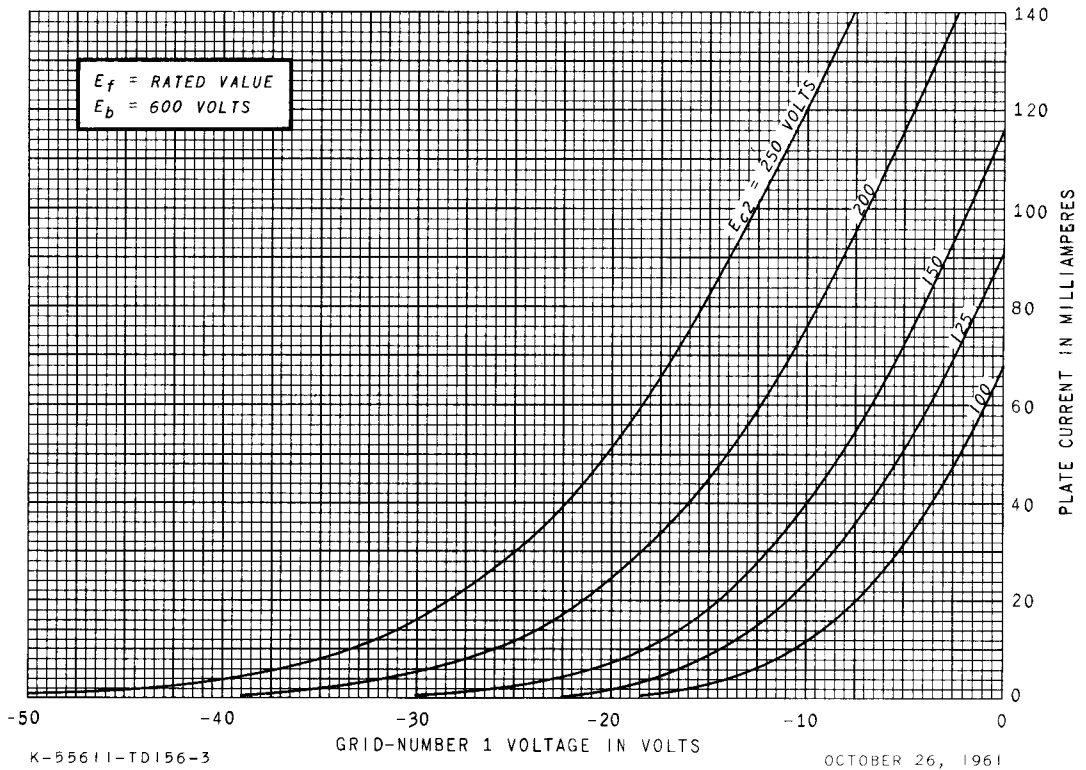
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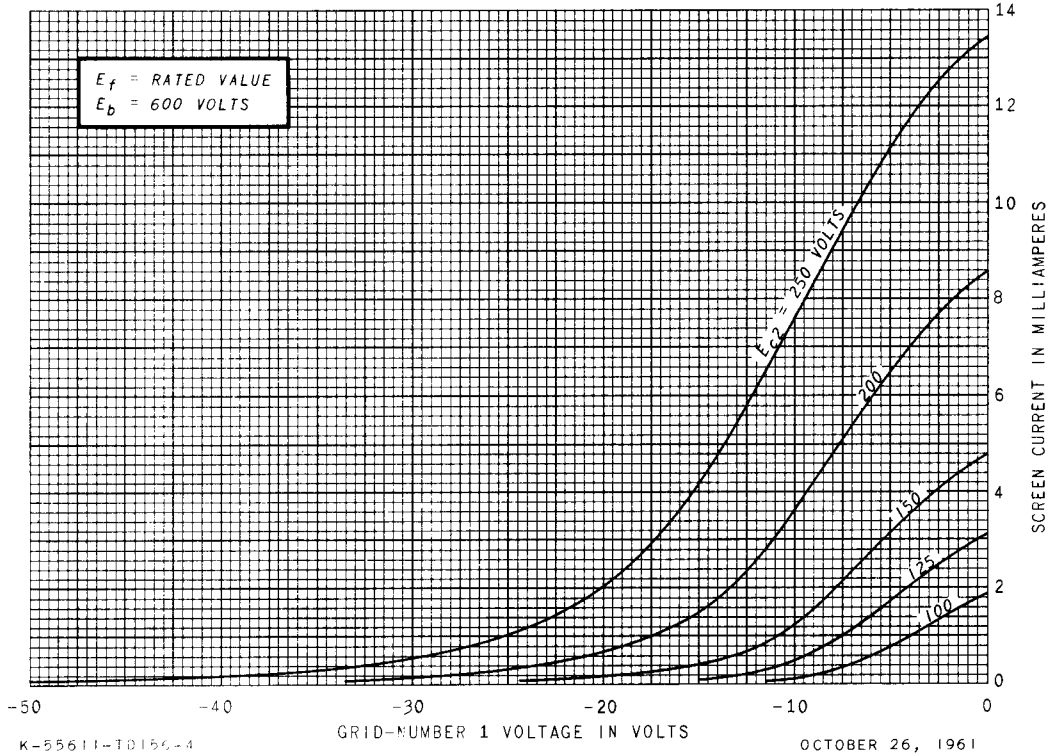
AVERAGE PLATE CHARACTERISTICS



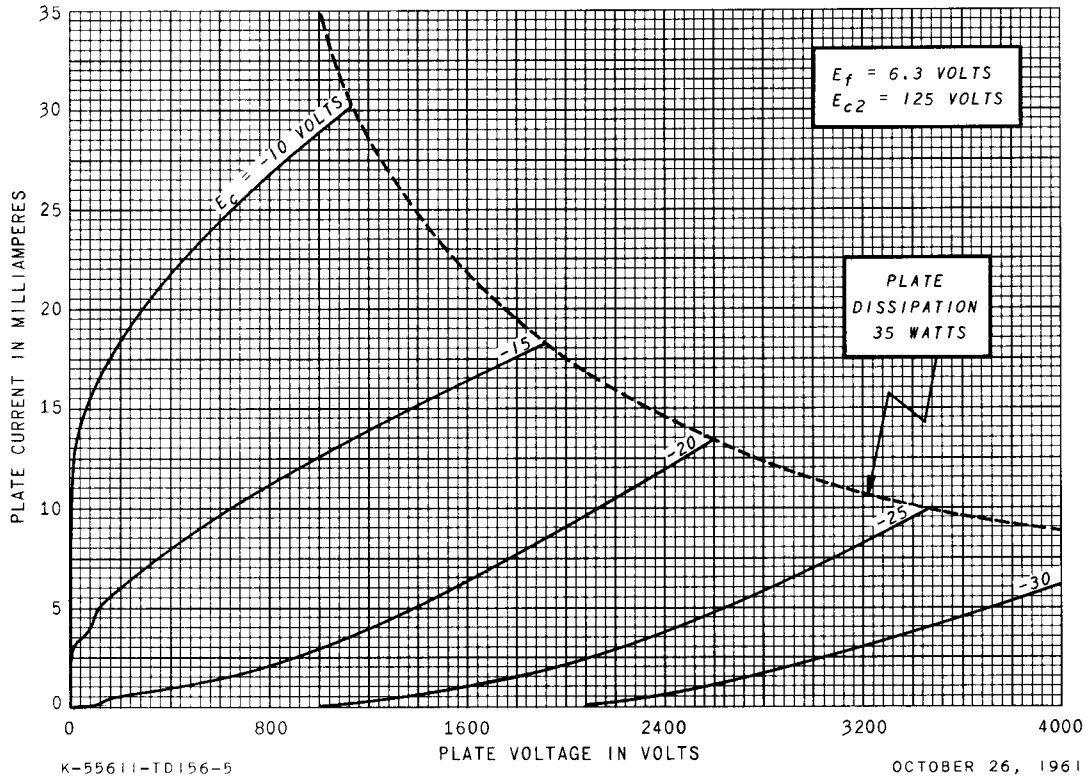
AVERAGE TRANSFER CHARACTERISTICS



AVERAGE TRANSFER CHARACTERISTICS



AVERAGE PLATE CHARACTERISTICS



RECEIVING TUBE DEPARTMENT

GENERAL  ELECTRIC

Owensboro, Kentucky