

DESCRIPTION AND RATING

The 7233 is a miniature, low-mu triode designed for service as a series regulator tube in power supplies. It is especially suited for use in compact electronic instruments.

GENERAL

ELECTRICAL

Cathode—Coated Unipotential

| | | |
|--|-----------|---------|
| Heater Voltage, AC or DC* | 6.3 ± 0.6 | Volts |
| Heater Current† | 1.0 | Amperes |
| Direct Interelectrode Capacitances, approximate‡ | | |
| Grid to Plate: (g to p) | 14 | μμf |
| Input: g to (h+k) | 7.5 | μμf |
| Output: p to (h+k) | 2.2 | μμf |

MECHANICAL

Mounting Position—Any
 Envelope—T-6½, Glass
 Base—E9-1, Small Button 9-Pin

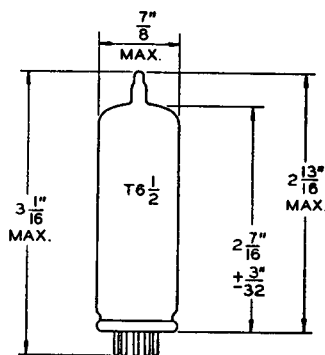
MAXIMUM RATINGS

SERIES-REGULATOR SERVICE—ABSOLUTE-MAXIMUM VALUES

| | | |
|---|-----|--------------|
| Plate Voltage | 330 | Volts |
| Positive DC Grid Voltage | 0 | Volts |
| Negative DC Grid Voltage | 135 | Volts |
| Plate Dissipation | 8.0 | Watts |
| DC Cathode Current | 150 | Milliamperes |
| Heater-Cathode Voltage | | |
| Heater Positive with Respect to Cathode | 300 | Volts |

| | | | |
|---|--------------------------|---------|-------|
| Heater Negative with Respect to Cathode | | 300 | Volts |
| Grid-Circuit Resistance | | | |
| With Fixed Bias§ | 0.1 | Megohms | |
| With Cathode Bias | 1.0 | Megohms | |
| Cathode Resistor, minimum | See Rating Chart, Page 2 | | |
| Bulb Temperature at Hottest Point | 200 | C | |

PHYSICAL DIMENSIONS

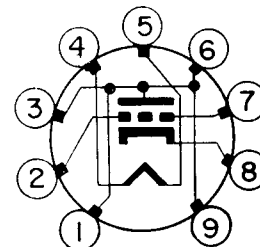


EIA 6-4

TERMINAL CONNECTIONS

- Pin 1—Plate
- Pin 2—Grid
- Pin 3—Plate
- Pin 4—Heater
- Pin 5—Heater
- Pin 6—Plate
- Pin 7—Grid
- Pin 8—Cathode
- Pin 9—Plate

BASING DIAGRAM



EIA 9FR

CHARACTERISTICS AND TYPICAL OPERATION

AVERAGE CHARACTERISTICS

| | | |
|--|-------|--------------|
| Plate Supply Voltage..... | 50 | |
| Plate Voltage..... | 125 | Volts |
| Cathode-Bias Resistor..... | 22 | Ohms |
| Amplification Factor..... | 4.0 | |
| Plate Resistance, approximate..... | 230 | Ohms |
| Transconductance..... | 17500 | Micromhos |
| Plate Current..... | 120 | Milliamperes |
| Grid Voltage, approximate | | |
| I _b = 1.0 Milliamperes..... | -60 | Volts |

* The equipment designer should design the equipment so that 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.

§ The use of fixed bias is not recommended when two or more tubes are used in parallel.

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

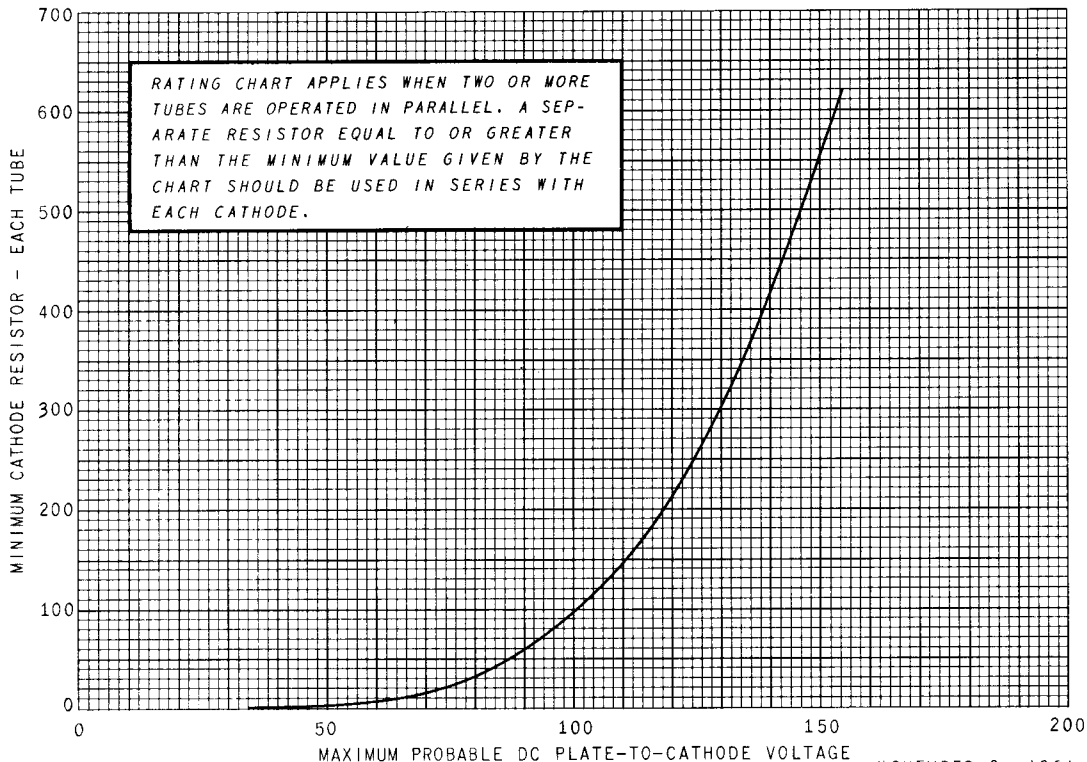
all other electron devices in the equipment.

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.

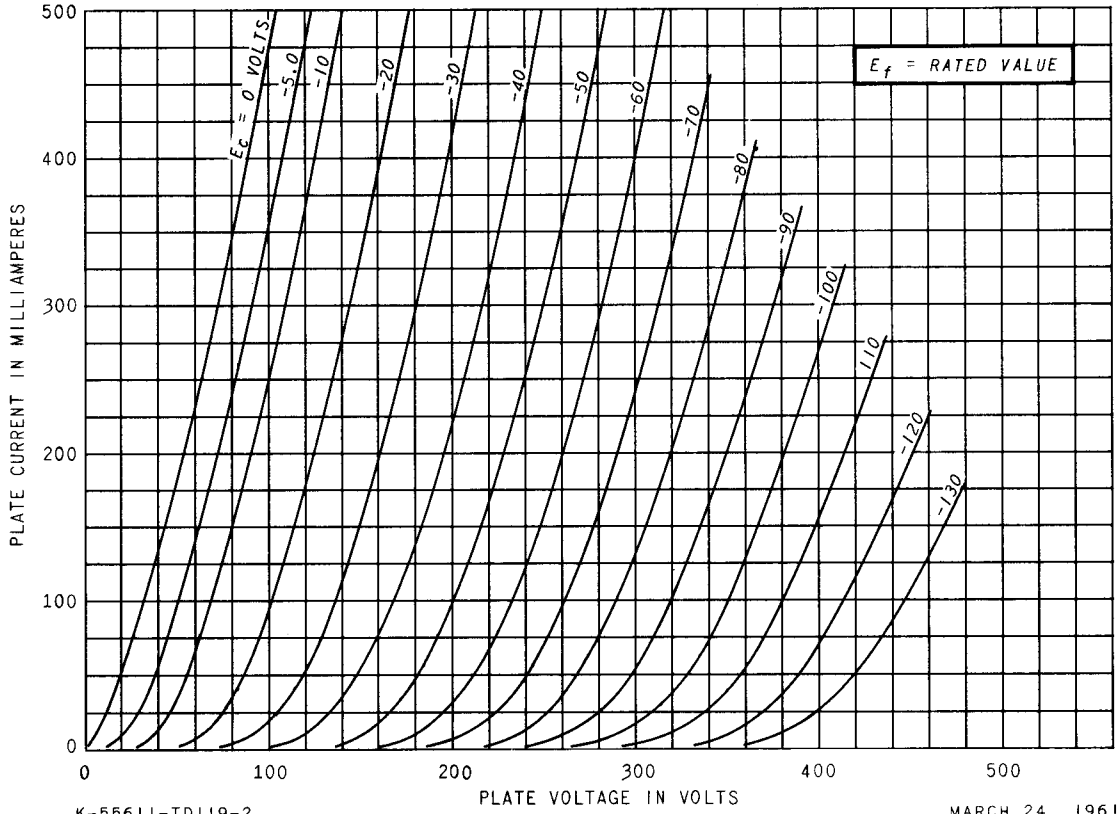
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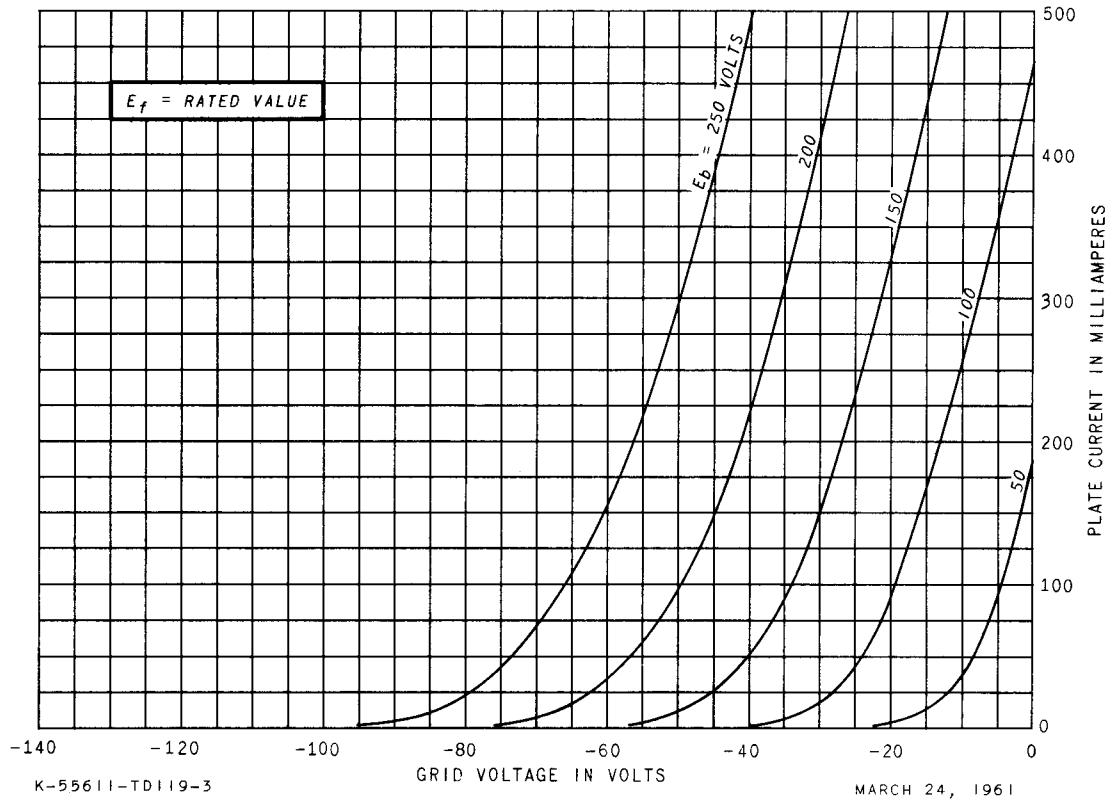
RATING CHART



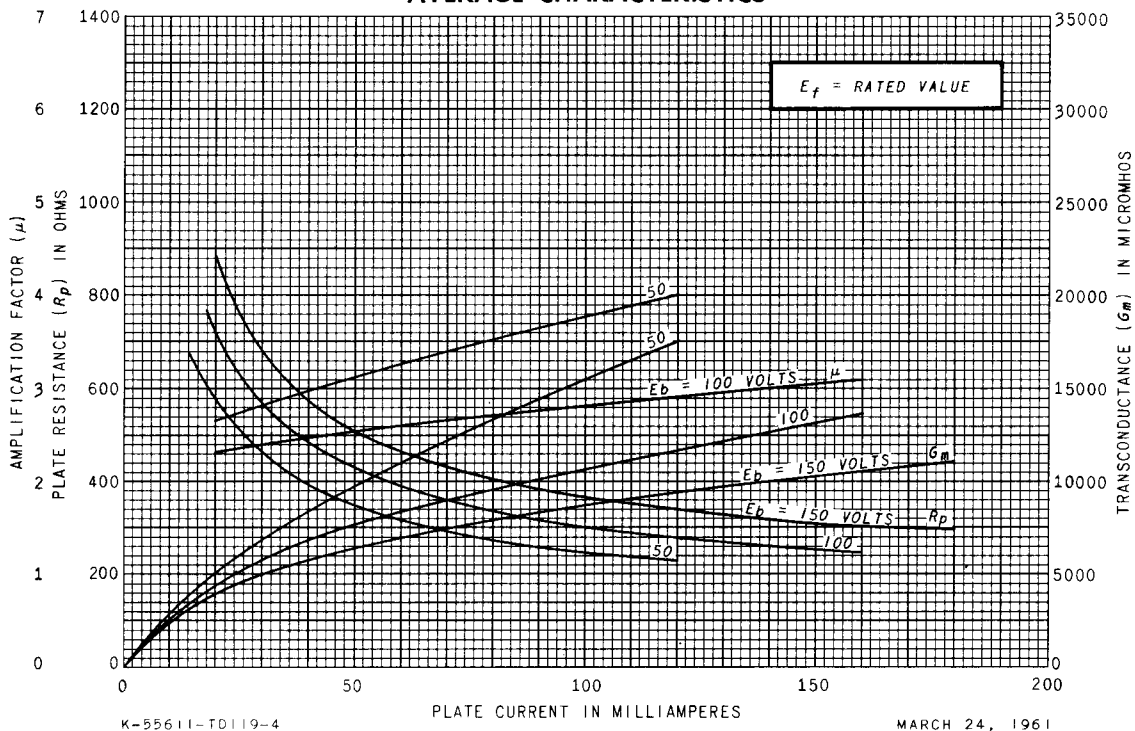
AVERAGE PLATE CHARACTERISTICS



AVERAGE TRANSFER CHARACTERISTICS



AVERAGE CHARACTERISTICS



RECEIVING TUBE DEPARTMENT

GENERAL  ELECTRIC

Owensboro, Kentucky