



DESCRIPTION AND RATING

FOR DETECTOR AND AF VOLTAGE-AMPLIFIER APPLICATIONS

The 14JG8 is a duplex-diode, high-mu triode with separate cathodes for each of the diode sections and the triode section. The tube is primarily designed for use as an FM detector and AF voltage amplifier.

GENERAL

ELECTRICAL

Cathode—Coated Unipotential

Heater Characteristics and Ratings

Heater Voltage, AC or DC*..... 14 Volts

Heater Current†..... 0.15 ± 0.009 Amperes

Direct Interelectrode Capacitances‡

Triode Grid to Plate..... 1.7 pf

Triode Input..... 1.8 pf

Triode Output..... 0.22 pf

Grid to Diode-Number 1 Plate, maximum..... 0.09 pf

Grid to Diode-Number 2 Plate, maximum..... 0.07 pf

Diode-Number 1 Input..... 2.4 pf

Diode-Number 2 Input..... 2.2 pf

Diode-Number 1 Cathode to All..... 6.0 pf

Diode-Number 2 Cathode to All..... 6.0 pf

MECHANICAL

Mounting Position—Any

Envelope—T-6½, Glass

Base—E9-1, Small Button 9-Pin

Outline Drawing—EIA 6-2

Maximum Diameter..... $\frac{7}{8}$ Inches

Maximum Over-all

Length..... $2\frac{3}{16}$ Inches

Maximum Seated

Height..... $1\frac{15}{16}$ Inches

MAXIMUM RATINGS

DESIGN-MAXIMUM VALUES

Plate Voltage..... 330 Volts

Positive DC Grid Voltage..... 0 Volts

Negative DC Grid Voltage..... 50 Volts

Plate Dissipation..... 1.1 Watts

Heater-Cathode Voltage

Heater Positive with Respect to Cathode

DC Component..... 100 Volts

Total DC and Peak..... 200 Volts

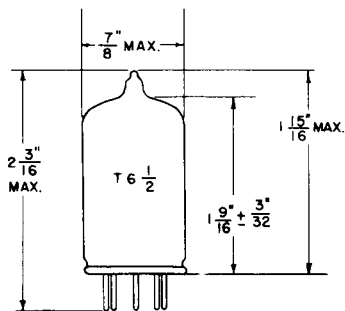
Heater Negative with Respect to Cathode

Total DC and Peak..... 200 Volts

Diode Current for Continuous Operation,

Each Diode..... 5.0 Milliampères

PHYSICAL DIMENSIONS



EIA 6-2

TERMINAL CONNECTIONS

Pin 1—Diode Number 2 Cathode

Pin 2—Diode Number 1 Plate

Pin 3—Diode Number 1 Cathode

Pin 4—Heater

Pin 5—Heater

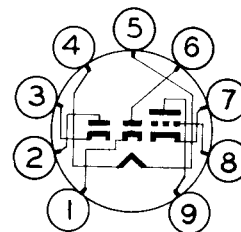
Pin 6—Diode Number 2 Plate

Pin 7—Triode Cathode

Pin 8—Triode Grid

Pin 9—Triode Plate

BASING DIAGRAM



EIA 9KR

CHARACTERISTICS AND TYPICAL OPERATION

AVERAGE CHARACTERISTICS

Plate Voltage.....250 Volts
 Grid Voltage.....-2.0 Volts
 Amplification Factor.....90
 Plate Resistance, approximate.....41000 Ohms

Transconductance.....2200 Micromhos
 Plate Current.....2.0 Milliamperes
 Average Diode Current, Each Diode
 With 5.0 Volts DC Applied.....20 Milliamperes

* Heater voltage for a bogey tube at $I_f = 0.15$ amperes.

† For series heater operation, the equipment designer should design the equipment so that heater current is centered at the specified bogey value, with heater supply variations

restricted to maintain heater current within the specified tolerance.

‡ Without external shield.

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

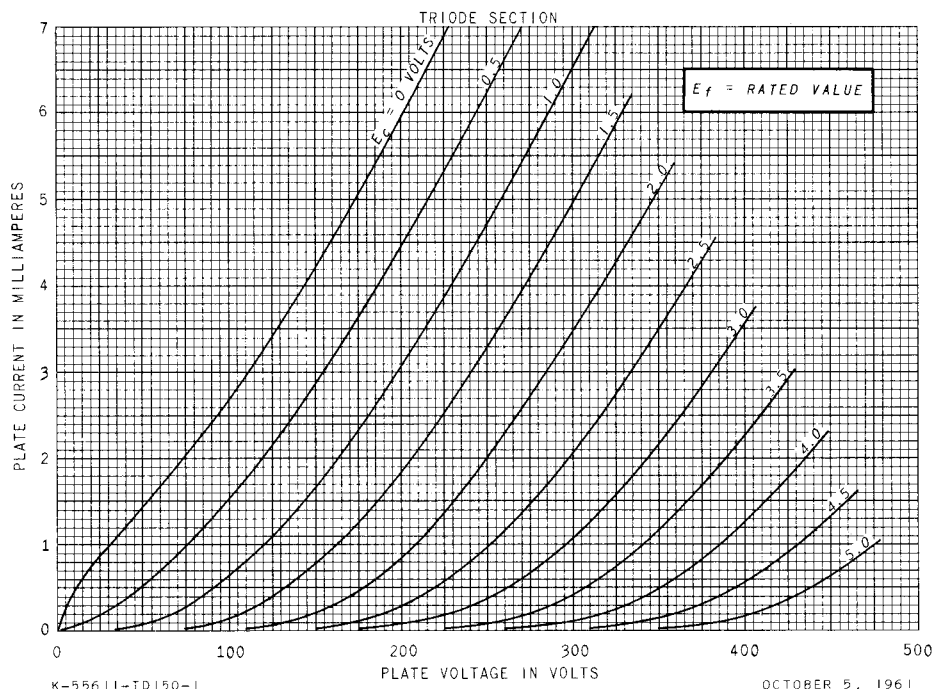
The tube manufacturer chooses these values to provide acceptable serviceability of the tube, making allowance for the effects of changes in operating conditions due to variations in the characteristics of the tube under consideration.

The equipment manufacturer should design so that initially and throughout life no design-maximum value for the intended service is exceeded with a bogey 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 all other electron devices in the equipment.

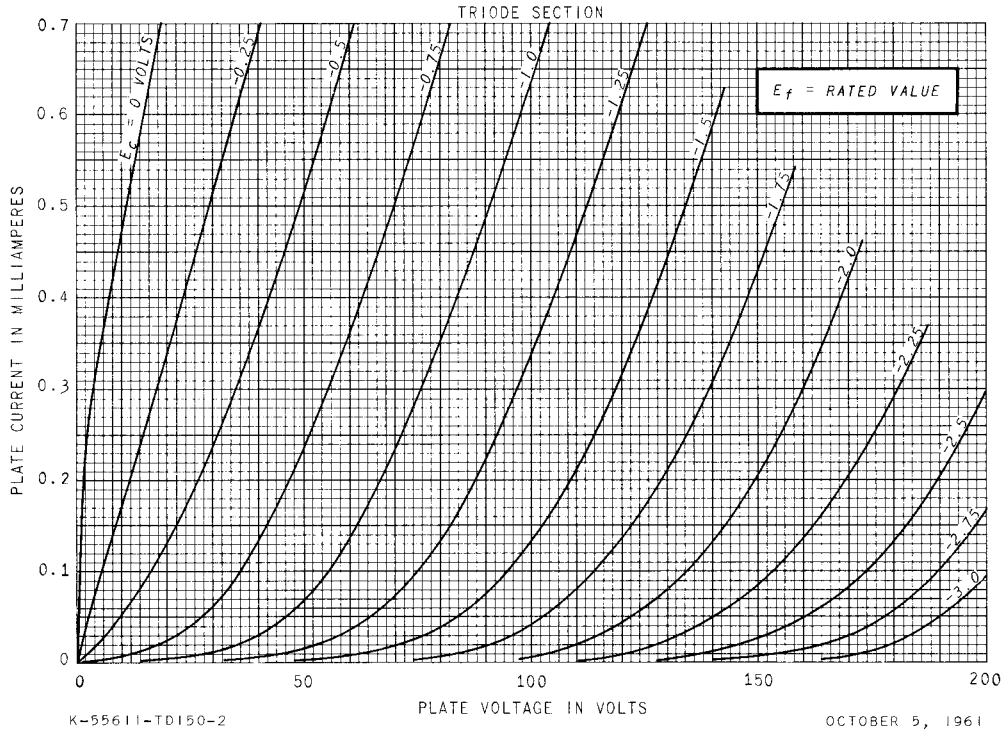
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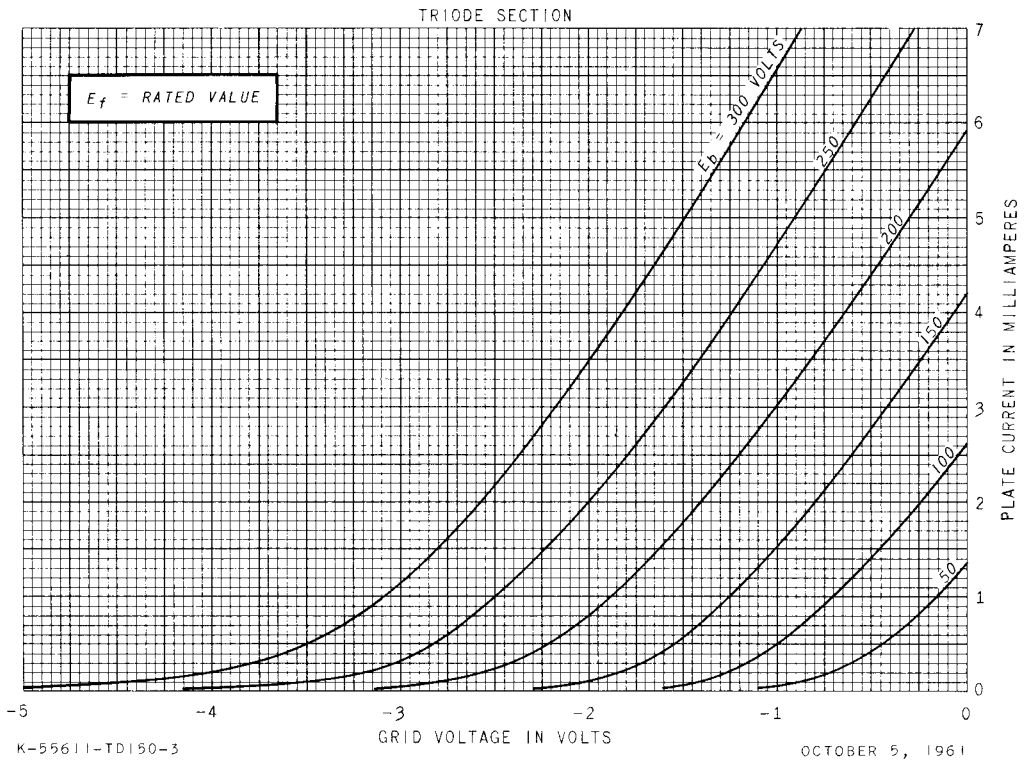
AVERAGE PLATE CHARACTERISTICS



AVERAGE PLATE CHARACTERISTICS

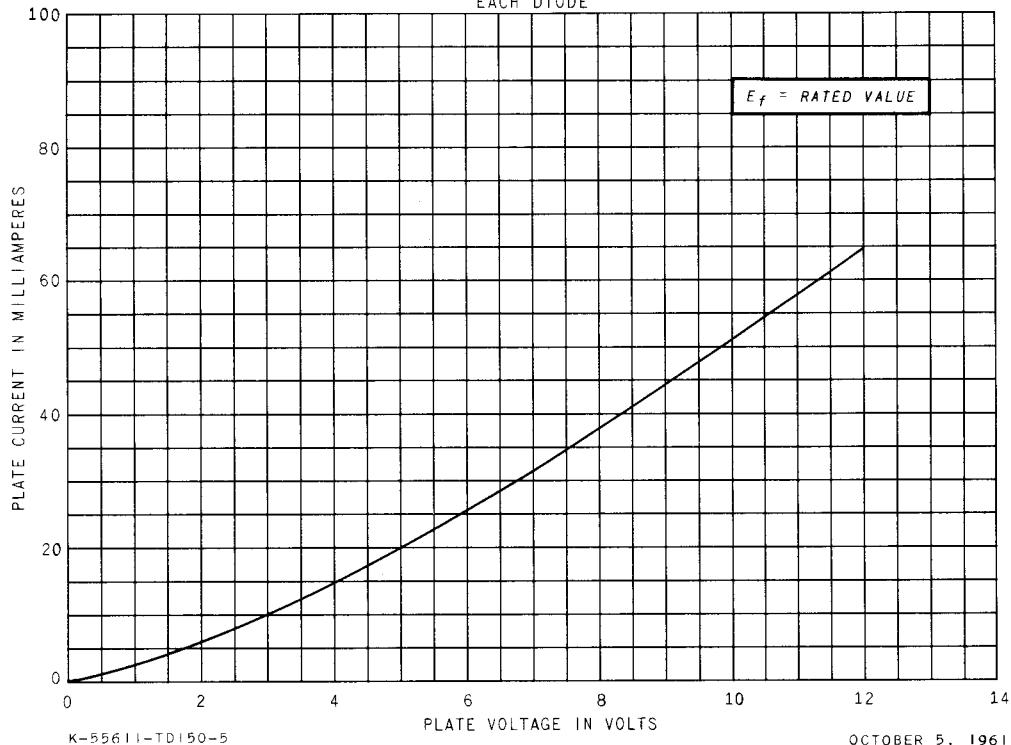


AVERAGE TRANSFER CHARACTERISTICS



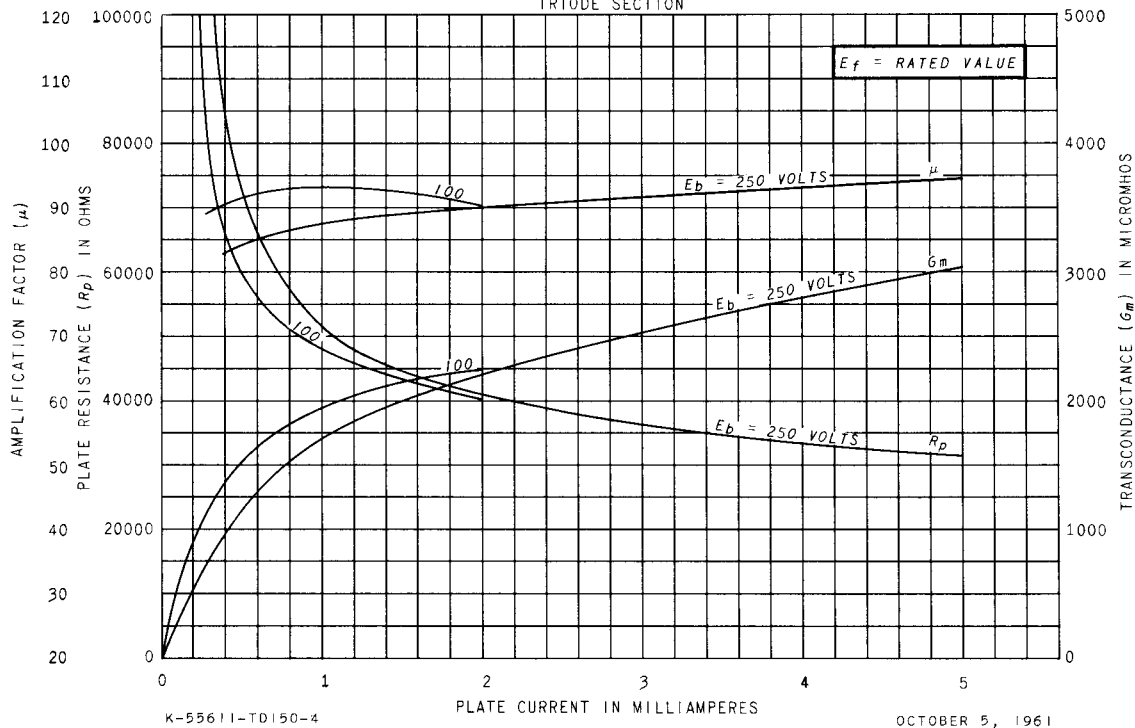
AVERAGE PLATE CHARACTERISTICS

EACH DIODE



AVERAGE CHARACTERISTICS

TRIODE SECTION



RECEIVING TUBE DEPARTMENT

GENERAL  ELECTRIC

Owensboro, Kentucky