Electronic TUBES

14GT8

DUPLEX-DIODE TRIODE

FOR DETECTOR AND AF VOLTAGE-AMPLIFIER APPLICATIONS

DESCRIPTION AND RATING

The 14GT8 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 Voltage, AC or DC	14 ± 10%	Volts
Heater Current	0.15	Amperes
Direct Interelectrode Capacitances*		
Triode Grid to Plate	1.8	μμf
Triode Input	1.6	μμf
Triode Output	0.24	μμf
Grid to Diode-Number 1 Plate, maximum	0.09	μμf
Grid to Diode-Number 2 Plate, maximum	0.07	μμf
Diode-Number 1 Input	2.4	μμf
Diode Number 2 Input	2.4	μμf
Diode-Number 1 Cathode to All	6.5	μμf
Diode-Number 2 Cathode to All	6.5	μμf

MECHANICAL

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

MAXIMUM RATINGS

DESIGN-MAXIMUM VALUES

Plate Voltage	330	Volts
Positive DC Grid Voltage	0	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	Milliamperes

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

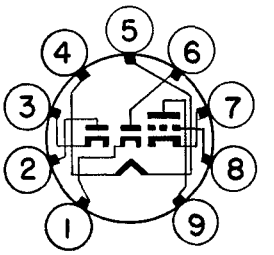
These values are chosen by the tube manufacturer to provide acceptable serviceability of the tube, taking responsibility for the effects of changes in operating conditions due to variations in the characteristics of the tube under consideration.

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, variation in characteristics of all other tubes in the equipment, equipment control adjustment, load variation, signal variation, and environmental conditions.

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 elements. In the absence of an express written agreement to the contrary, General Electric Company assumes no liability for patent infringement arising out of any use of the tubes with other devices or elements by any purchaser of tubes or others.

GENERAL ELECTRIC

BASING DIAGRAM



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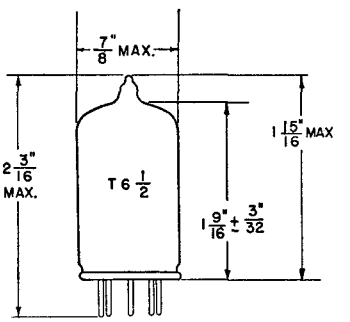
TERMINAL CONNECTIONS

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

PHYSICAL DIMENSIONS



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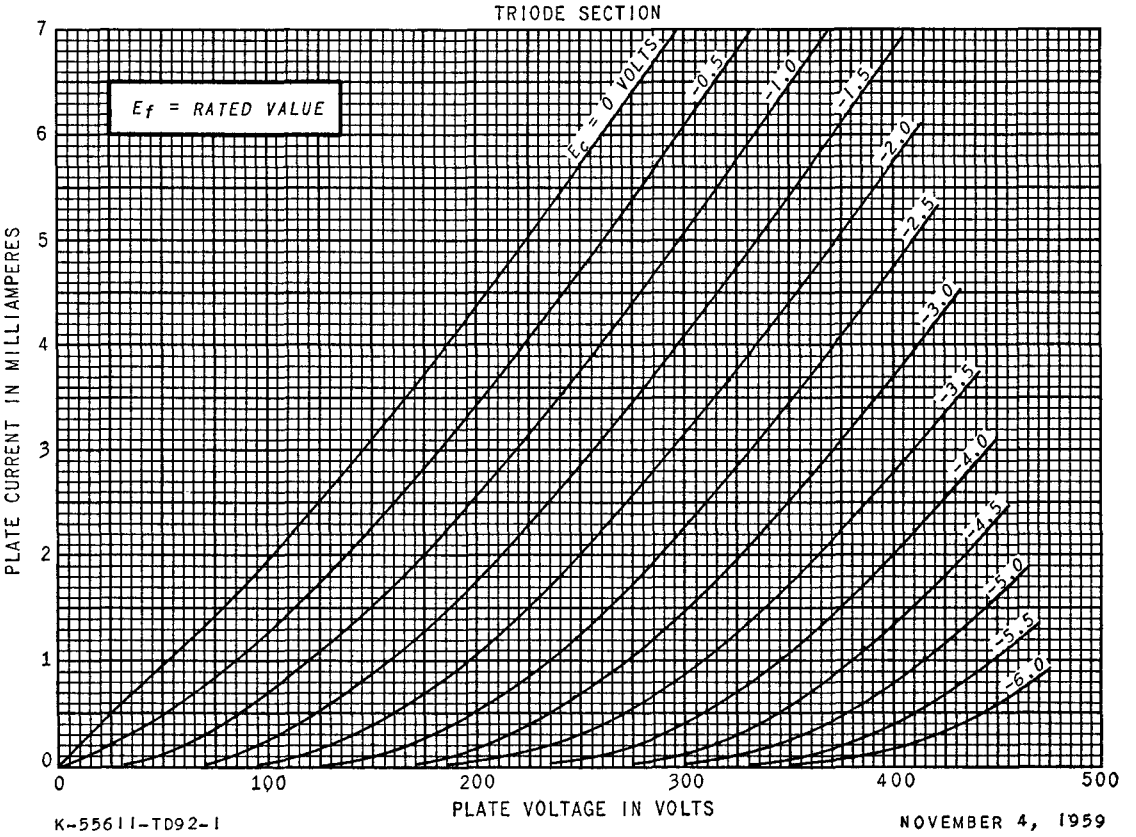
CHARACTERISTICS AND TYPICAL OPERATION

CLASS A_1 AMPLIFIER

Plate Voltage	250	Volts
Grid Voltage	−3.0	Volts
Amplification Factor	72	
Plate Resistance, approximate	72000	Ohms
Transconductance	1000	Micromhos
Plate Current	0.7	Milliamperes
Average Diode Current, Each Diode With 5.0 Volts DC Applied	18	Milliamperes

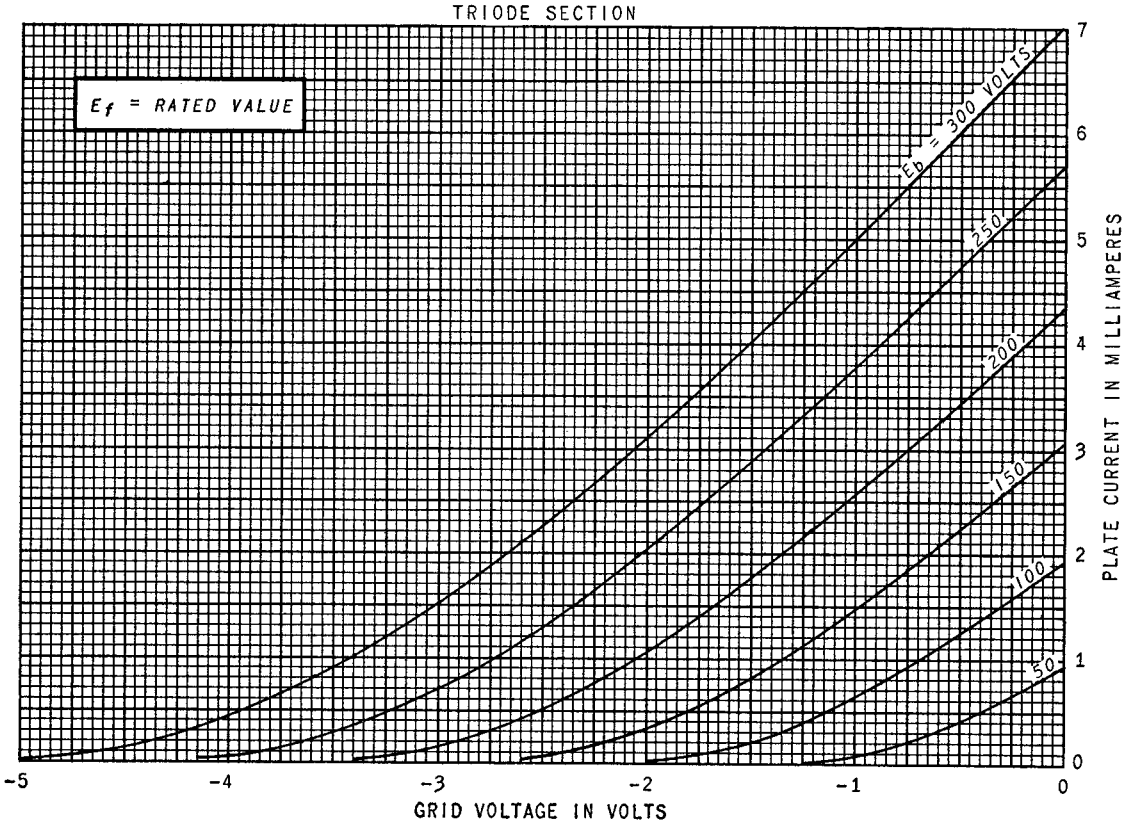
* Without external shield.

AVERAGE PLATE CHARACTERISTICS



AVERAGE TRANSFER CHARACTERISTICS

TRIODE SECTION



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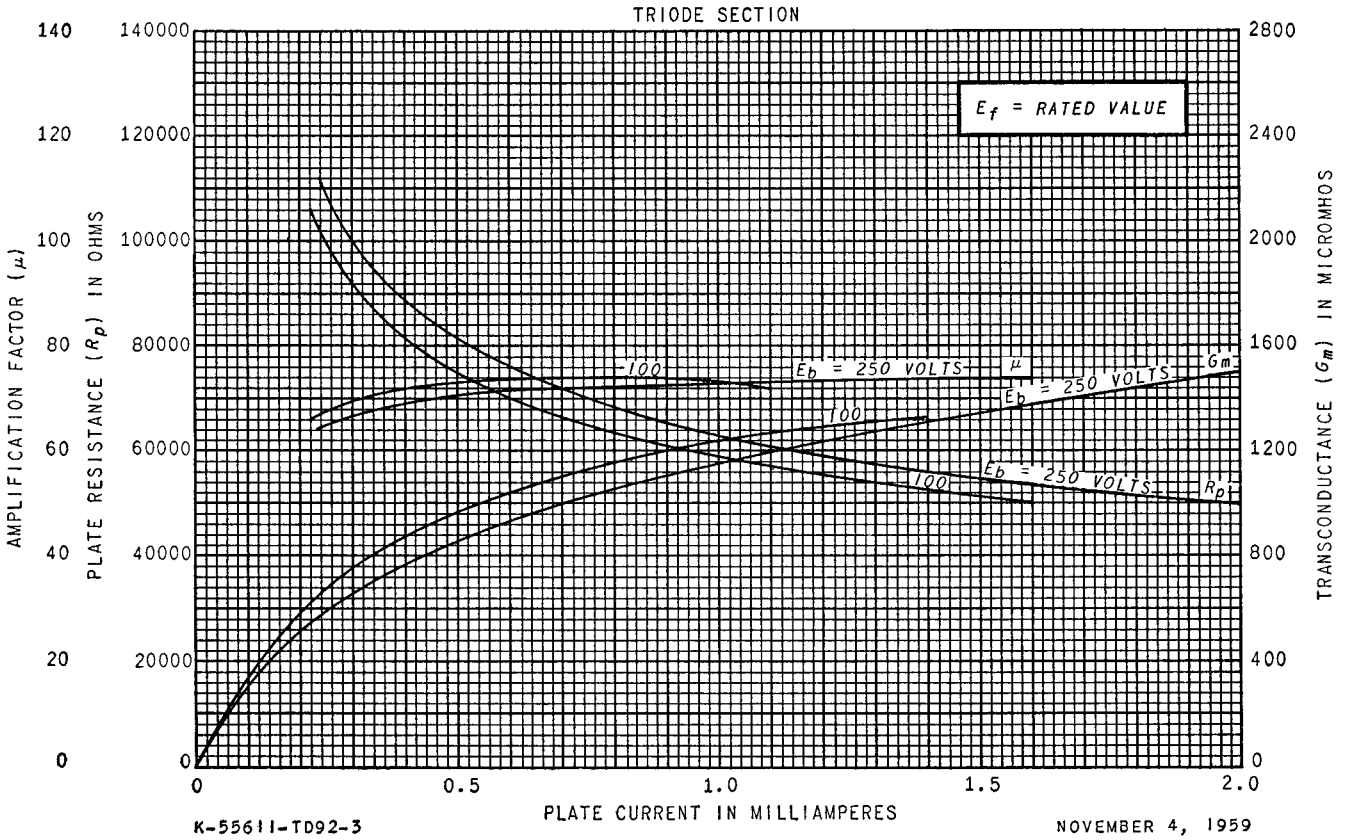
AVERAGE CHARACTERISTICS

TRIODE SECTION



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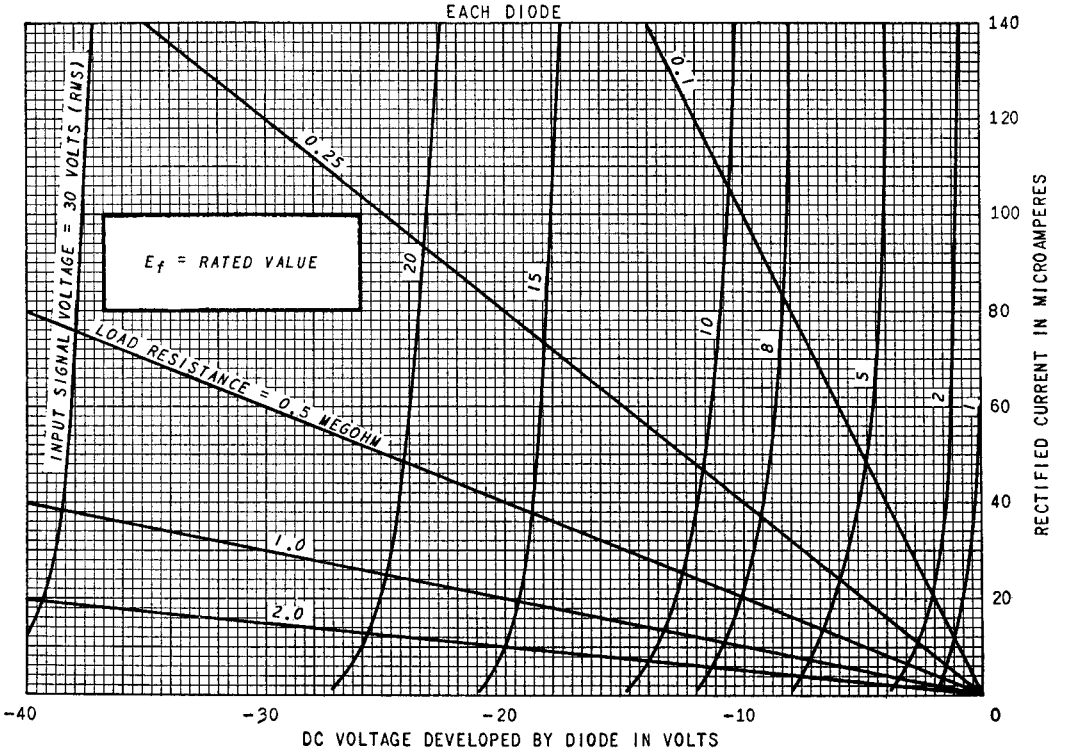
OPERATION CHARACTERISTICS

EACH DIODE



ELECTRONIC COMPONENTS DIVISION

GENERAL ELECTRIC

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