



# 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

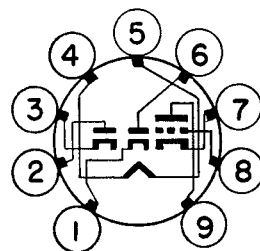
Design-Maximum ratings are limiting values of operating and environmental conditions applicable to a bogey tube of a specified type as defined by its published data, and should not be exceeded under the worst probable conditions.

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.

#### BASING DIAGRAM

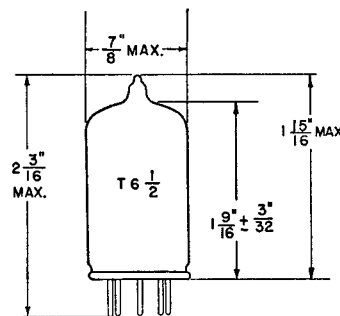


EIA 9KR

#### 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



EIA 6-2

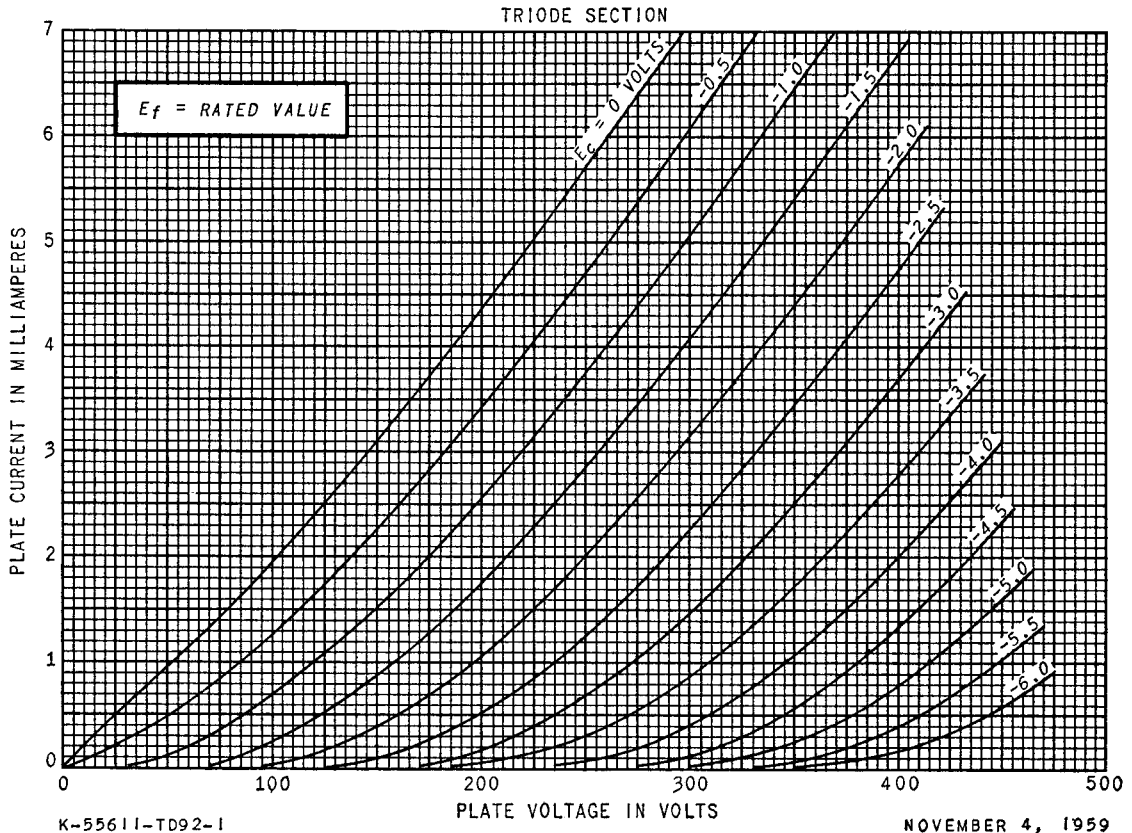
**CHARACTERISTICS AND TYPICAL OPERATION**

**CLASS A<sub>1</sub> AMPLIFIER**

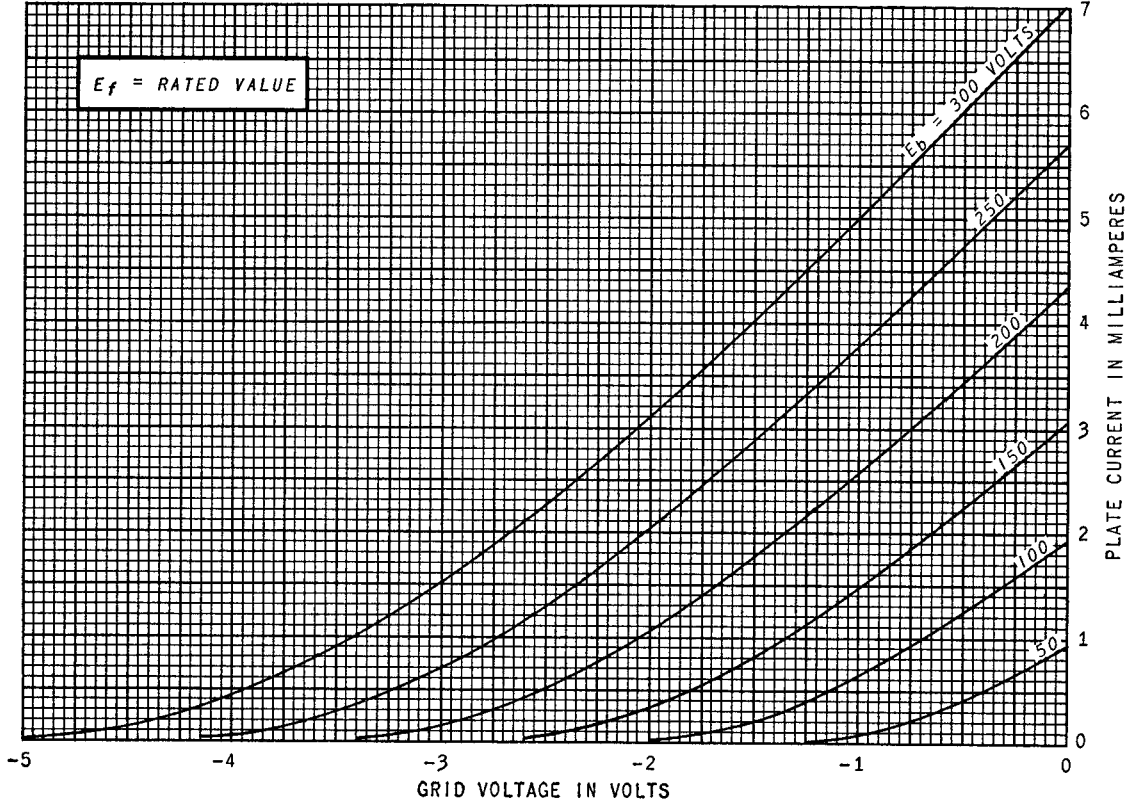
Plate Voltage.....	250	Volts
Grid Voltage.....	-3.0	Volts
Amplification Factor.....	72	
Plate Resistance, approximate.....	72000	Ohms
Transconductance.....	1000	Micromhos
Plate Current.....	0.7	Milliamperes
Average Diode Current, Each Diode		
With 5.0 Volts DC Applied.....	18	Milliamperes

\* Without external shield.

**AVERAGE PLATE CHARACTERISTICS**



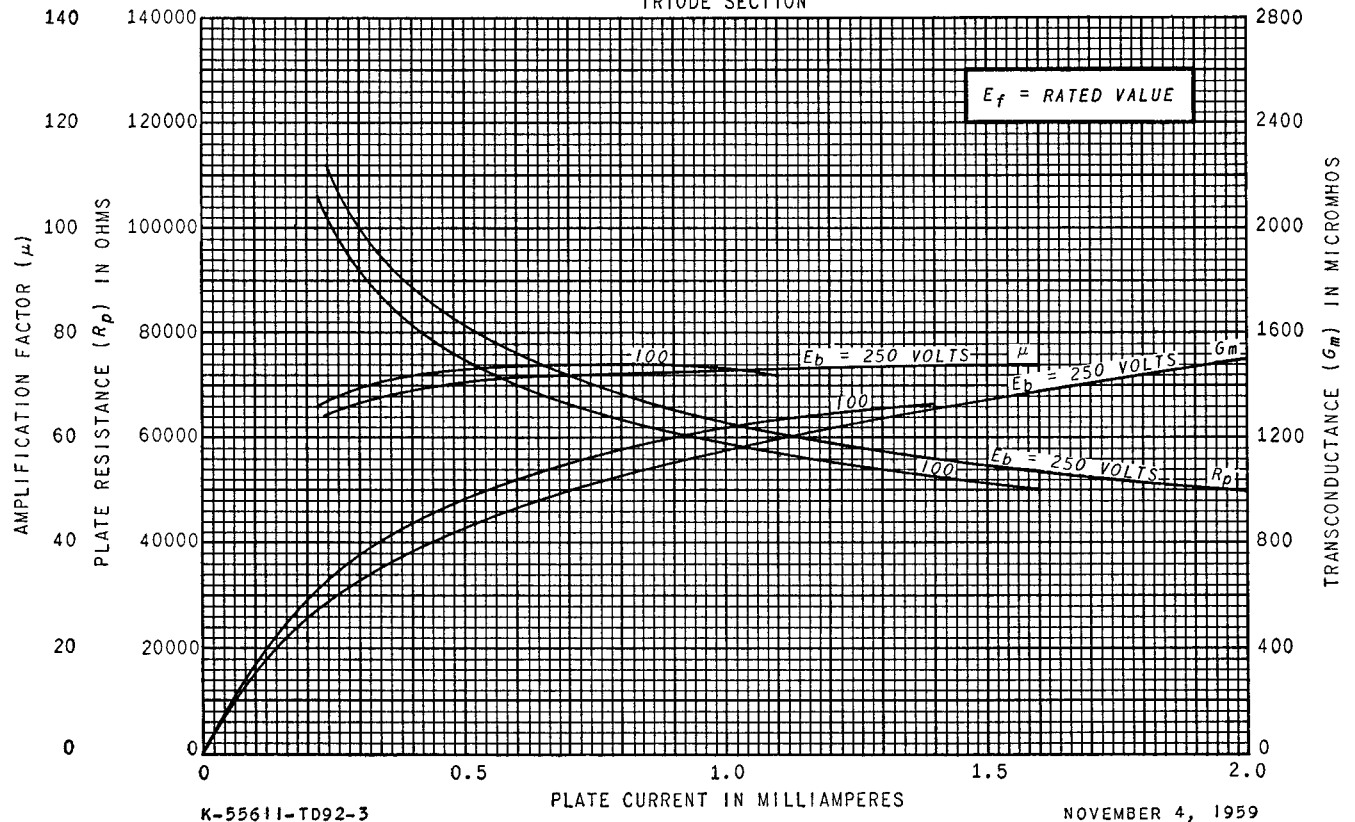
**AVERAGE TRANSFER CHARACTERISTICS**  
 TRIODE SECTION



K-55611-TD92-2

NOVEMBER 4, 1959

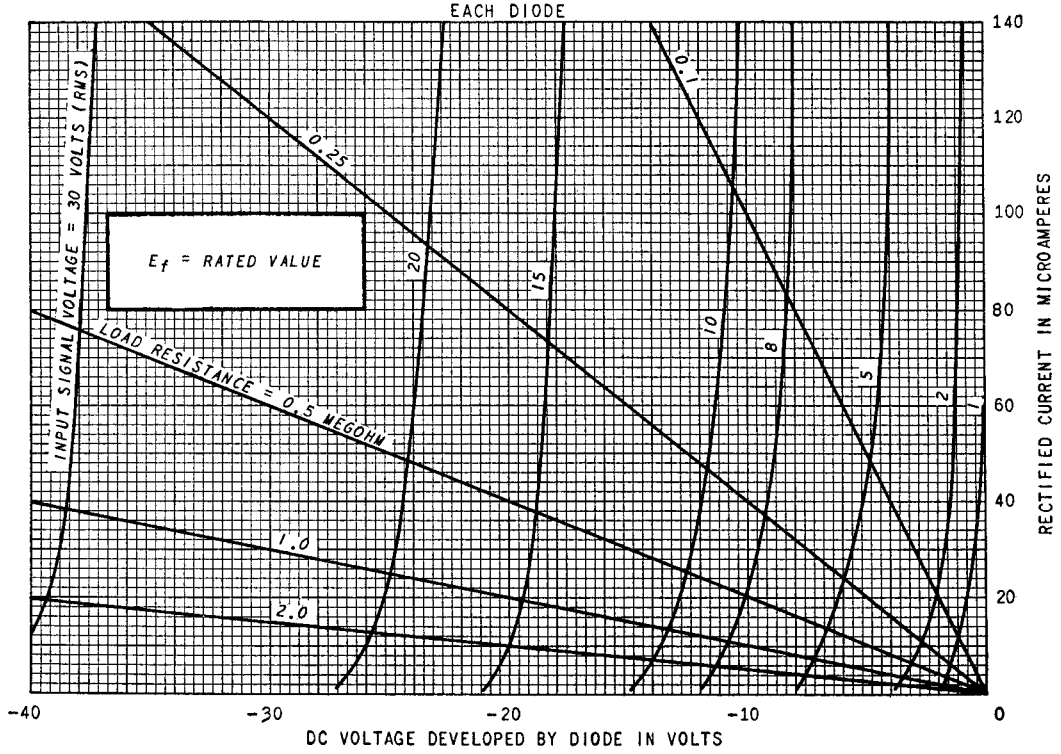
**AVERAGE CHARACTERISTICS**  
 TRIODE SECTION



K-55611-TD92-3

NOVEMBER 4, 1959

### OPERATION CHARACTERISTICS



ELECTRONIC COMPONENTS DIVISION  
**GENERAL**  **ELECTRIC**  
Schenectady 5, N. Y.