

DESCRIPTION AND RATING

The 6GY8 is a miniature, high-mu, triple triode. It is intended for radio-frequency amplifier, autodyne mixer, and automatic-frequency-control service in FM receivers.

GENERAL

ELECTRICAL

Cathode—Coated Unipotential

Heater Voltage, AC or DC $6.3 \pm 10\%$ Volts

Heater Current 0.45 Amperes

Direct Interelectrode Capacitances

	With Shield*	Without Shield
Grid to Plate, Section 1: (1g + h + 3k to 1p)	1.5	1.6 $\mu\mu\text{f}$
Grid to Plate, Section 2: (2g to 2p)	1.4	1.4 $\mu\mu\text{f}$
Grid to Plate, Section 3: (3g to 3p)	1.5	1.5 $\mu\mu\text{f}$
Input, Section 1: 1k to (H + 1g + 3k)	5.0†	5.0 $\mu\mu\text{f}$
Input, Section 2: 2g to (H + 1g + 2k + 3k)	2.6†	2.4 $\mu\mu\text{f}$
Input, Section 3: 3g to (H + 1g + 3k)	2.4†	2.2 $\mu\mu\text{f}$
Output, Section 1: 1p to (H + 1g + 3k)	2.4†	1.6 $\mu\mu\text{f}$
Output, Section 2: 2p to (H + 1g + 2k + 3k)	1.4†	0.4 $\mu\mu\text{f}$
Output, Section 3: 3p to (H + 1g + 3k)	1.0†	0.2 $\mu\mu\text{f}$
Heater to Cathode, Section 1: (H + 1g + 3k to 1k) . .	5.0	5.0 $\mu\mu\text{f}$
Heater to Cathode, Section 2: (H + 1g + 3k to 2k) . .	2.8	2.8 $\mu\mu\text{f}$

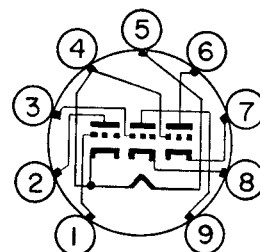
MECHANICAL

Mounting Position—Any

Envelope—T-6½, Glass

Base—E9-1, Small Button 9-Pin

BASING DIAGRAM

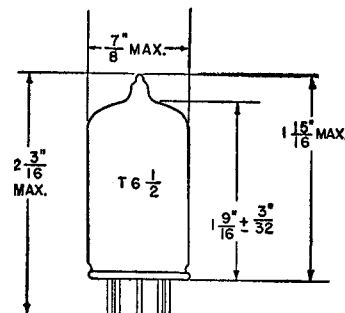


EIA 9MB

TERMINAL CONNECTIONS

- Pin 1—Grid (Section 3)
- Pin 2—Plate (Section 3)
- Pin 3—Grid (Section 2)
- Pin 4—Cathode (Section 3),
Grid (Section 1), and
Heater
- Pin 5—Heater
- Pin 6—Plate (Section 1)
- Pin 7—Cathode (Section 1)
- Pin 8—Cathode (Section 2)
- Pin 9—Plate (Section 2)

PHYSICAL DIMENSIONS



EIA 6-2

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.

MAXIMUM RATINGS

DESIGN-MAXIMUM VALUES, EACH SECTION

Plate Voltage.....	330	Volts
Positive DC Grid Voltage.....	0	Volts
Plate Dissipation, Each Plate.....	2.0	Watts
Total Plate Dissipation, All Plates.....	5.0	Watts
Heater-Cathode Voltage		
Heater Positive with Respect to Cathode.....	100	Volts
Heater Negative with Respect to Cathode.....	100	Volts

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.

CHARACTERISTICS AND TYPICAL OPERATION

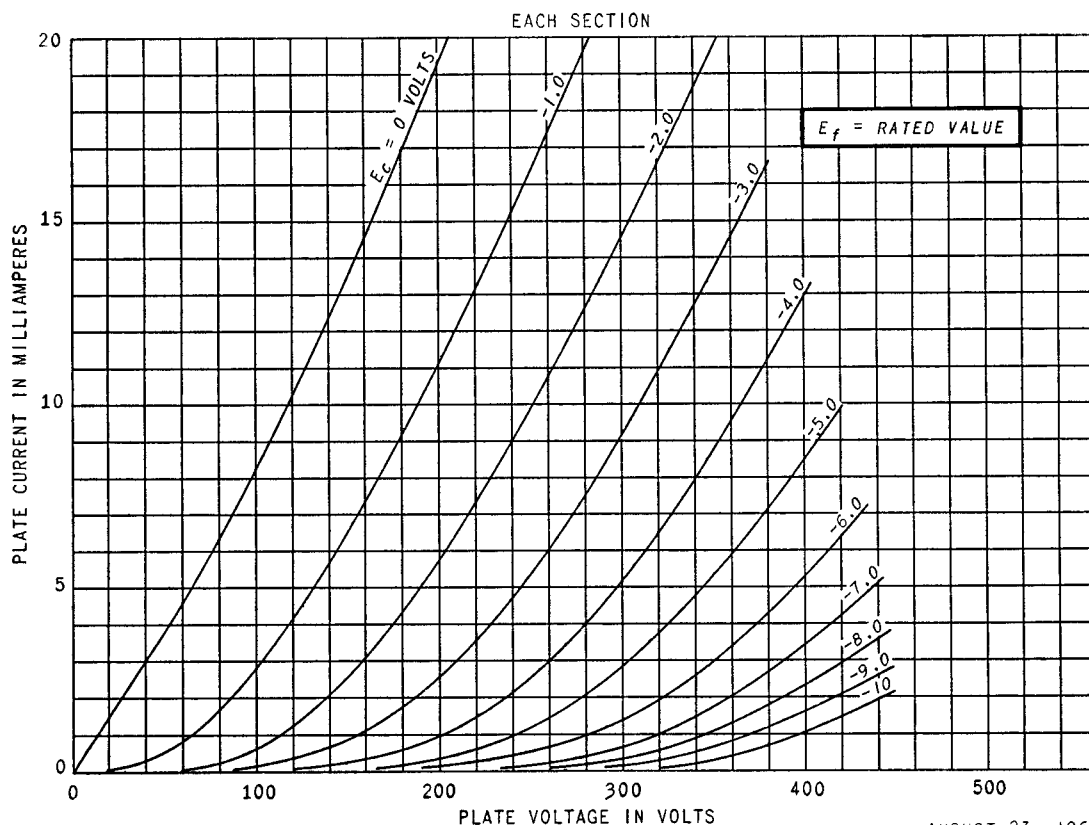
AVERAGE CHARACTERISTICS

	Section 1	Sections 2 and 3	
Plate Voltage.....	125	125	Volts
Grid Voltage.....	—	—1.0	Volts
Cathode-Bias Resistor.....	220	—	
Amplification Factor.....	63	63	
Plate Resistance, approximate.....	14000	14000	Ohms
Transconductance.....	4500	4500	Micromhos
Plate Current.....	4.5	4.5	Milliamperes
Grid Voltage, approximate			
$I_b = 20$ Microamperes.....	—	—4	Volts

* With external shield (EIA 315) connected to ground unless otherwise indicated.

† With external shield (EIA 315) connected to pin 4.

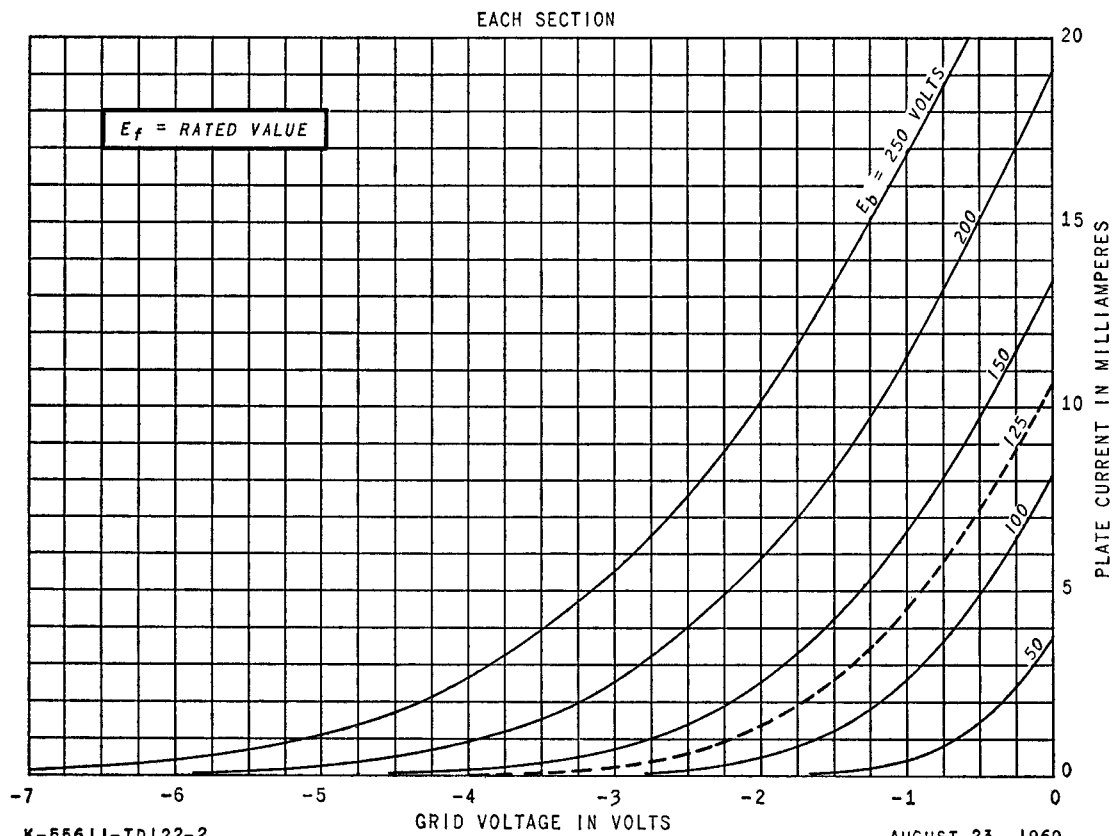
AVERAGE PLATE CHARACTERISTICS



K-55611-TD122-1

AUGUST 23, 1960

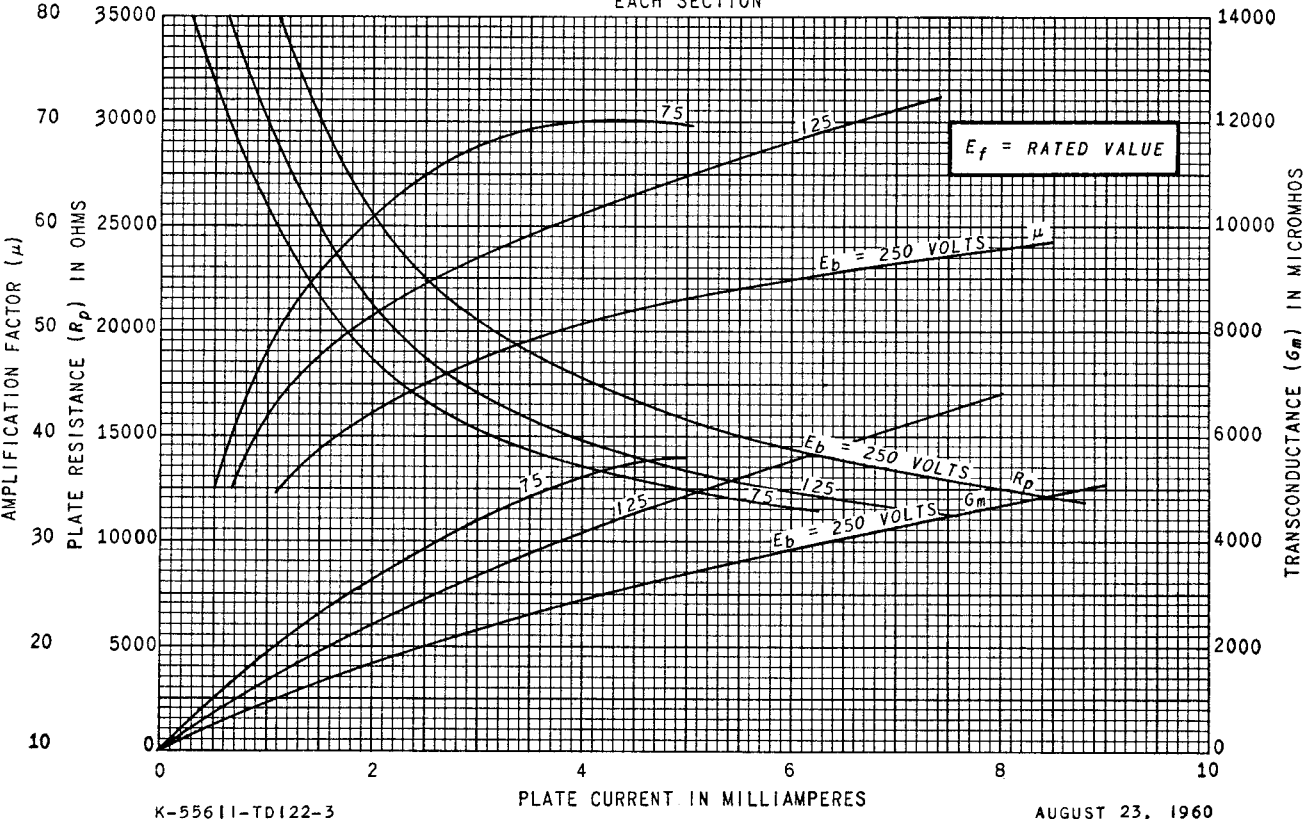
AVERAGE TRANSFER CHARACTERISTICS



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AUGUST 23, 1960

AVERAGE CHARACTERISTICS
 EACH SECTION



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