Electronic TUBES

12FQ8

TWIN DOUBLE-PLATE TRIODE

DESCRIPTION AND RATING

The 12FQ8 is a miniature twin double-plate triode with each section having a grid and two plates brought out to separate base pins.

GENERAL

ELECTRICAL

Cathode—Coated Unipotential

Heater Voltage, AC or DC	12.6	Volts
Heater Current	0.15	Amperes
Direct Interelectrode Capacitances*		
Input, Each Section	1.7	μμf
Output		
Plate A (Section 1)	0.34	μμf
Plate B (Section 1)	0.24	μμf
Plate A (Section 2)	0.30	μμf
Plate B (Section 2)	0.18	μμf
Grid to Plate		
Section 1—Grid to Plate A	0.9	μμf
Grid to Plate B	0.9	μμf
Section 2—Grid to Plate A	0.9	μμf
Grid to Plate B	0.9	μμf
Plate to Plate, Each Section	1.2	μμf
Plate A (Section 1) to Plate A (Section 2)	0.4	μμf

MECHANICAL

Mounting Position—Any
Envelope—T-6½, Glass

MAXIMUM RATINGS

DESIGN-MAXIMUM VALUES, EACH SECTION

Allowable Heater Voltage	11.3 to 13.9	Volts
Plate Voltage	330	Volts
Positive DC Grid Voltage	0	Volts
Plate Dissipation, Each Plate	0.5	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

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.

The tube manufacturer chooses these values to provide acceptable serviceability of the tube, taking responsibility for the effects of changes in operating conditions due to variations in tube characteristics.

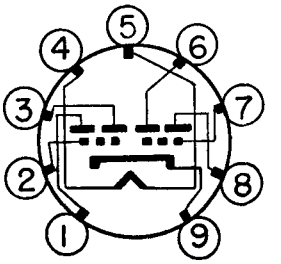
The equipment manufacturer should design so that initially and throughout life no design-maximum value for the intended service is exceeded with a bogey tube under the worst probable operating conditions with respect to supply-voltage variation, equipment component variation, equipment control adjustment, load variation, signal variation, 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

Supersedes ET-T1528, dated 5-59

BASING DIAGRAM

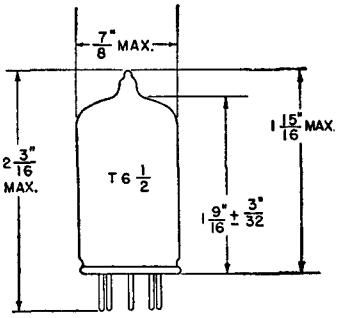


EIA 9KT

TERMINAL CONNECTIONS

Pin 1—Plate B (Section 2)
Pin 2—Grid (Section 2)
Pin 3—Plate A (Section 2)
Pin 4—Heater
Pin 5—Heater
Pin 6—Plate B (Section 1)
Pin 7—Grid (Section 1)
Pin 8—Plate A (Section 1)
Pin 9—Cathode

PHYSICAL DIMENSIONS



EIA 6-2

CHARACTERISTICS AND TYPICAL OPERATION

AVERAGE CHARACTERISTICS, EACH SECTION

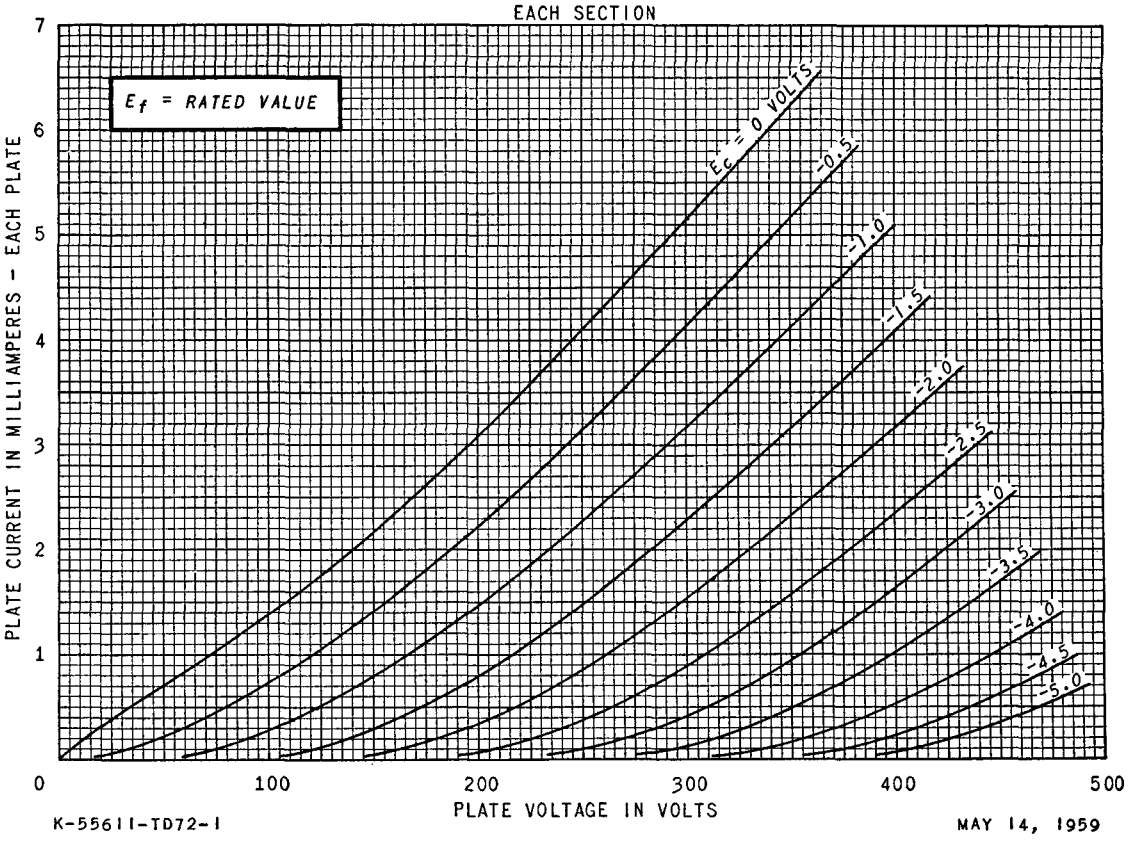
Plate Voltage	250	Volts
Grid Voltage	−1.5	Volts
Amplification Factor, Grid to Each Plate†	95	
Plate Resistance, approximate, Each Plate†	76000	Ohms
Transconductance, Grid to Each Plate†	1250	Micromhos
Plate Current, Each Plate†	1.5	Milliamperes

* Without external shield.

† Other plate of same section grounded.

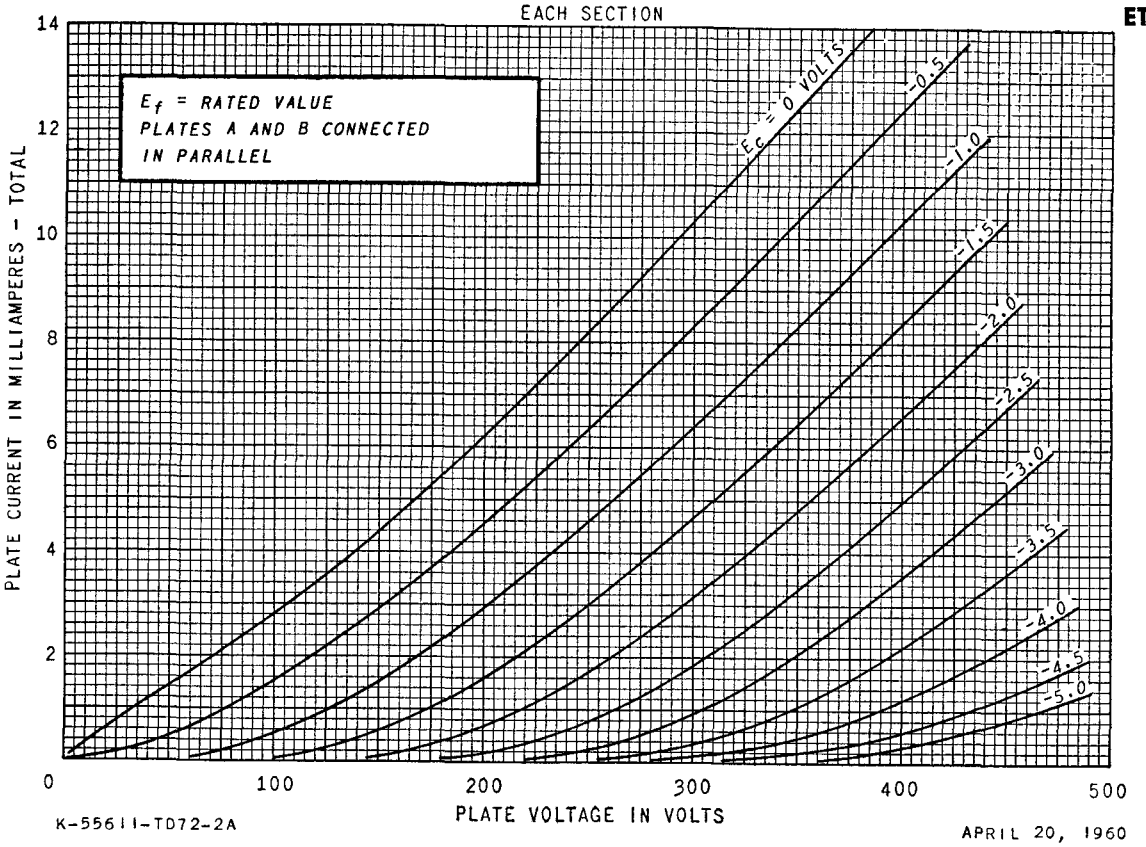
AVERAGE PLATE CHARACTERISTICS

EACH SECTION



AVERAGE PLATE CHARACTERISTICS

EACH SECTION

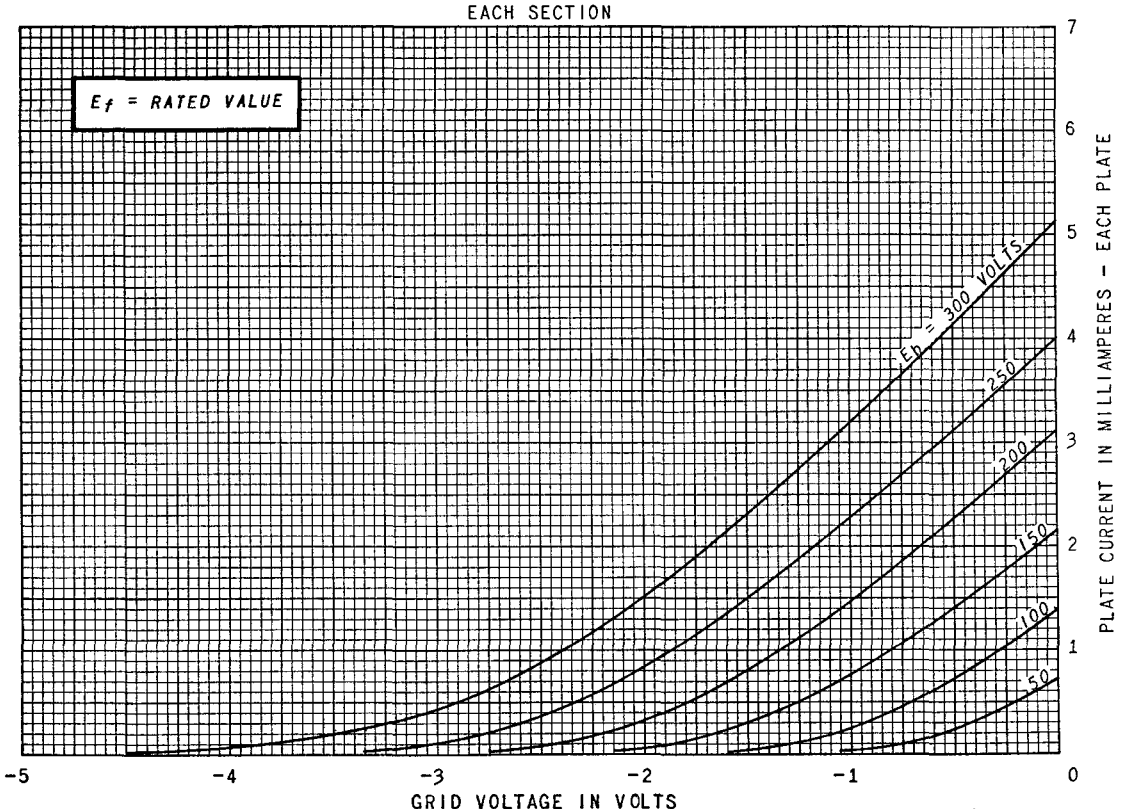


K-55611-TD72-2A

APRIL 20, 1960

AVERAGE TRANSFER CHARACTERISTICS

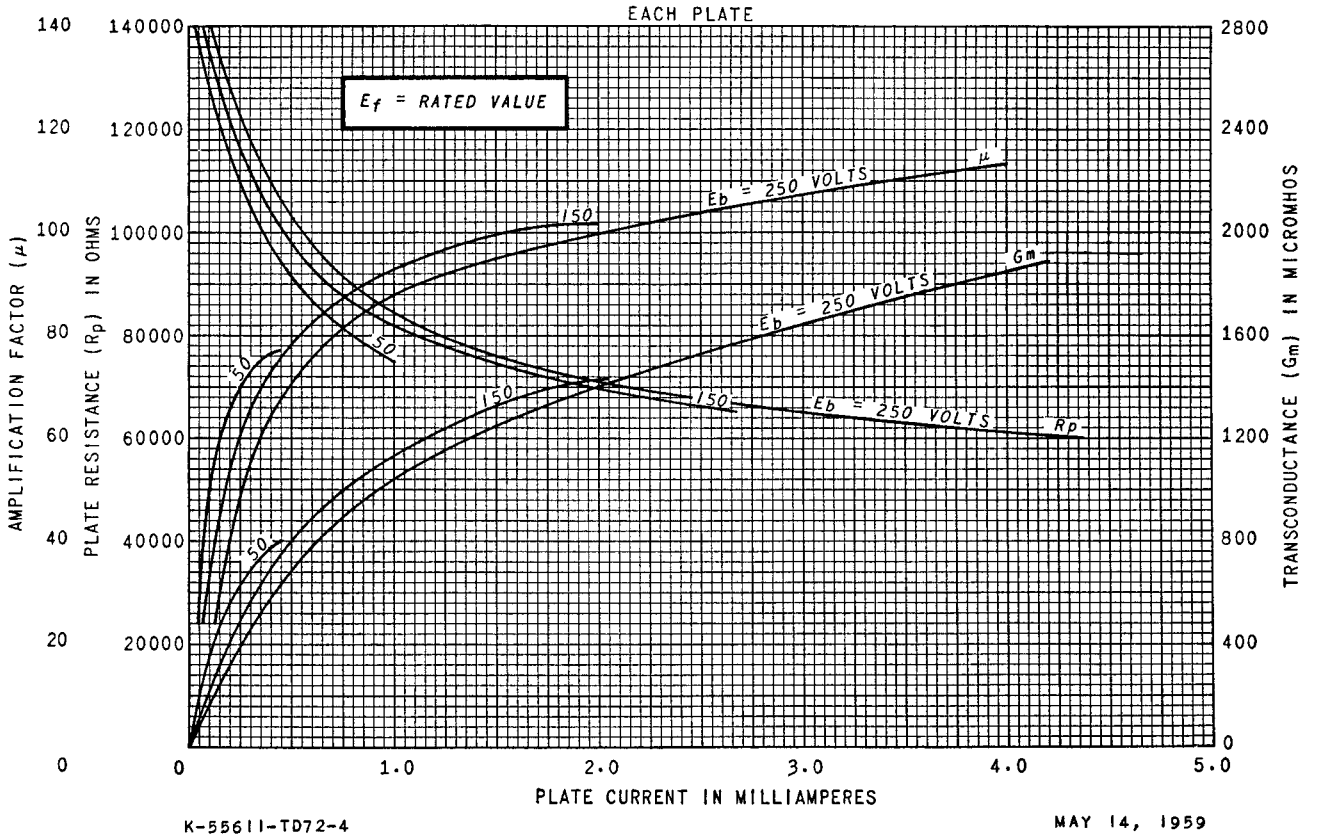
EACH SECTION



K-55611-TD72-3

MAY 14, 1959

AVERAGE CHARACTERISTICS



ELECTRONIC COMPONENTS DIVISION

GENERAL ELECTRIC

Schenectady 5, N. Y.

PRINTED IN U.S.A.