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 Inter electrode Capacitances*
Input, Each Section.................................................. 1.7 μF
Output
  Plate A (Section 1)............................................. 0.34 μF
  Plate B (Section 1)............................................. 0.24 μF
  Plate A (Section 2)............................................. 0.30 μF
  Plate B (Section 2)............................................. 0.18 μF
Grid to Plate
  Section 1—Grid to Plate A..................................... 0.9 μF
  Grid to Plate B.................................................. 0.9 μF
  Section 2—Grid to Plate A..................................... 0.9 μF
  Grid to Plate B.................................................. 0.9 μF
Plate to Plate, Each Section..................................... 1.2 μF
Plate A (Section 1) to Plate A (Section 2)...................... 0.4 μF

**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.
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

E_t = RATED VALUE
AVERAGE PLATE CHARACTERISTICS
EACH SECTION

$E_f = $ RATED VALUE
PLATES A AND B CONNECTED
IN PARALLEL

PLATE CURRENT IN MILLIAMPERES - TOTAL

PLATE VOLTAGE IN VOLTS

K-55611-TD72-2A
APRIL 20, 1960

AVERAGE TRANSFER CHARACTERISTICS
EACH SECTION

$E_f = $ RATED VALUE

GRID VOLTAGE IN VOLTS

K-55611-TD72-3
MAY 14, 1959