

# 12FQ8

## High-Mu Twin Double-Plate Triode

### 9-PIN MINIATURE TYPE

For Frequency-Divider and Complex-Wave-Generator  
Circuits of Electronic Musical Instruments

#### GENERAL DATA

#### Electrical:

Heater, for Unipotential Cathode:

Voltage (AC or DC) . . . . . 12.6 ± 10% volts  
Current at 12.6 volts . . . . . 0.15 amp

Direct Interelectrode Capacitances (Approx.):<sup>▲</sup>

Grid to either plate (Each unit) . . . . . 0.9 μf  
Grid to cathode and heater (Each Unit) . . . . . 1.8 μf  
Plate A of unit No.1 to cathode and heater . . . . . 0.34 μf  
Plate B of unit No.1 to cathode and heater . . . . . 0.24 μf  
Plate A of unit No.2 to cathode and heater . . . . . 0.3 μf  
Plate B of unit No.2 to cathode and heater . . . . . 0.18 μf  
Plate A to plate B (Each unit) . . . . . 0.7 μf  
Plate A of unit No.1 to plate A of  
unit No.2 . . . . . 0.4 μf

#### Characteristics, Class A<sub>1</sub> Amplifier (Each Unit):

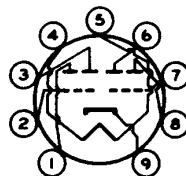
*Using either plate A or plate B, with  
plate not in use connected to ground*

Plate Voltage . . . . . 250 volts  
Grid Voltage . . . . . -1.5 volts  
Amplification Factor . . . . . 95  
Plate Resistance (Approx.) . . . . . 76000 ohms  
Transconductance . . . . . 1250 μmhos  
Plate Current . . . . . 1.5 ma

#### Mechanical:

Operating Position . . . . . Any  
Maximum Overall Length . . . . . 2-3/16"  
Maximum Seated Length . . . . . 1-15/16"  
Length, Base Seat to Bulb Top (Excluding tip) . . . . . 1-9/16" ± 3/32"  
Diameter . . . . . 0.750" to 0.875"  
Dimensional Outline . . . . . See *General Section*  
Bulb . . . . . T6-1/2  
Base . . . . . Small-Button Noval 9-Pin (JEDEC No. E9-1)  
Basing Designation for BOTTOM VIEW . . . . . 9KT

Pin 1 - Plate B of  
Unit No.2  
Pin 2 - Grid of  
Unit No.2  
Pin 3 - Plate A of  
Unit No.2  
Pin 4 - Heater  
Pin 5 - Heater



Pin 6 - Plate B of  
Unit No.1  
Pin 7 - Grid of  
Unit No.1  
Pin 8 - Plate A of  
Unit No.1  
Pin 9 - Cathode



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## FREQUENCY-DIVIDER & COMPLEX-WAVE-GENERATOR SERVICE

*Values are for Each Unit*

**Maximum Ratings, Design-Maximum Values:**

PLATE A VOLTAGE. . . . .	330	max.	volts
PLATE B VOLTAGE. . . . .	330	max.	volts
GRID VOLTAGE:			
Positive-bias value. . . . .	0	max.	volts
PLATE A DISSIPATION. . . . .	0.5	max.	watt
PLATE B DISSIPATION. . . . .	0.5	max.	watt
PEAK HEATER-CATHODE VOLTAGE:			
Heater negative with respect to cathode. . .	200	max.	volts
Heater positive with respect to cathode. . .	200 <sup>•</sup>	max.	volts

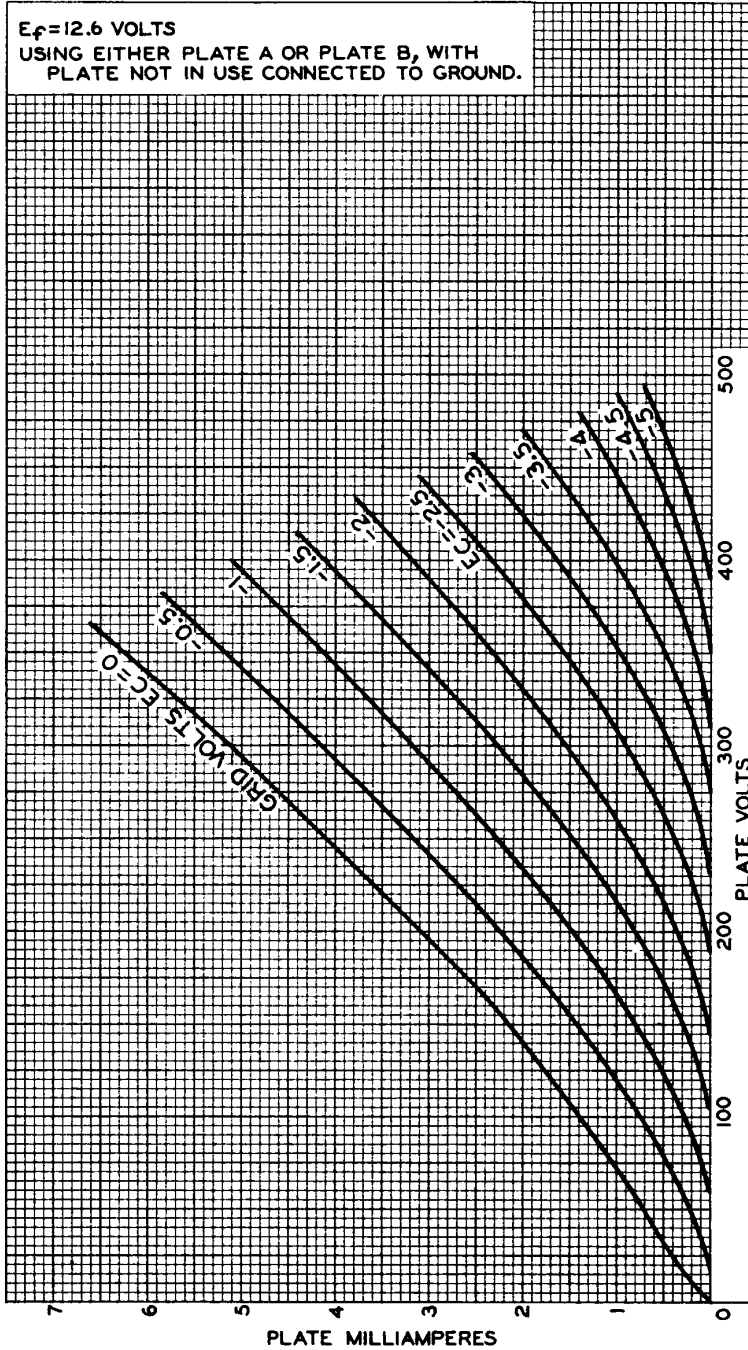
▲ Without external shield.

• The dc component must not exceed 100 volts.



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## AVERAGE PLATE CHARACTERISTICS Each Unit



92CM-10755RI

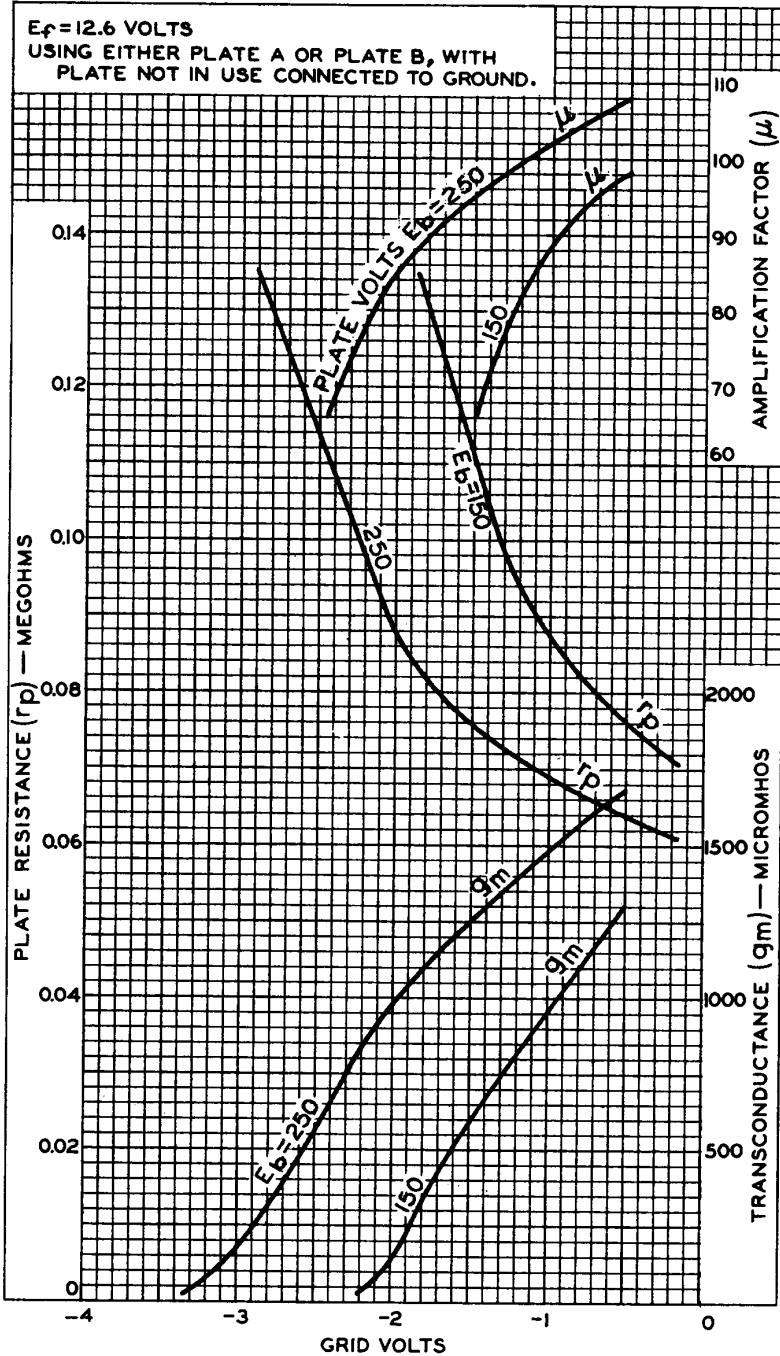


RADIO CORPORATION OF AMERICA  
Electron Tube Division  
Harrison, N. J.

DATA 2  
10-60

# 12FQ8

## AVERAGE CHARACTERISTICS Each Unit



92CM-10754RI

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