

# 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 <i>General Section</i>
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



# 12FQ8

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

*Values are for Each Unit*

### Maximum Ratings, Design-Maximum Values:

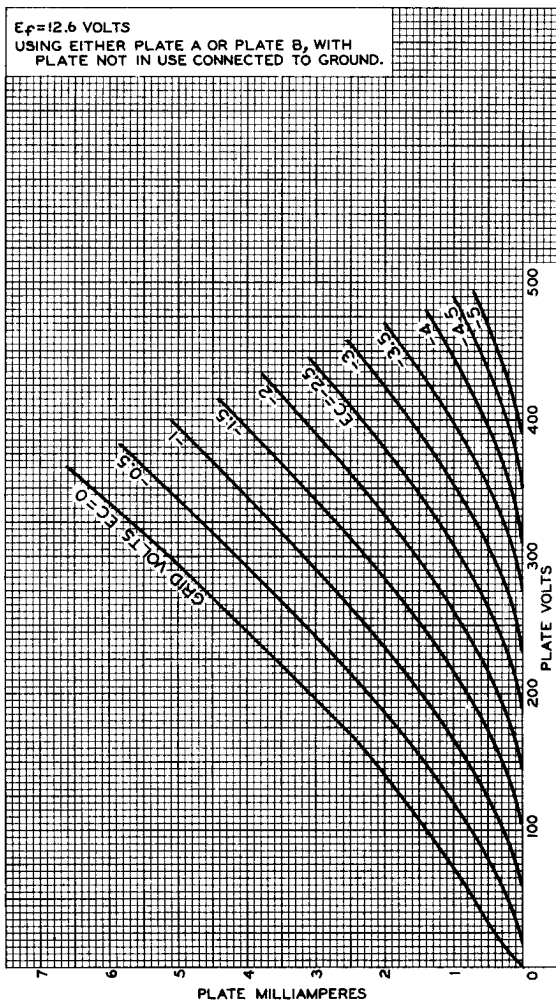
PLATE A VOLTAGE. . . . .	330	max.	volts
PLATE B VOLTAGE. . . . .	330	max.	volts
GRID VOLTAGE:			
Positive-bias value. . . . .	0	max.	volts
PLATE A DISSIPATION. . . . .	0.5	max.	watt
PLATE B DISSIPATION. . . . .	0.5	max.	watt
PEAK HEATER-CATHODE VOLTAGE:			
Heater negative with respect to cathode. . .	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.



## AVERAGE PLATE CHARACTERISTICS Each Unit

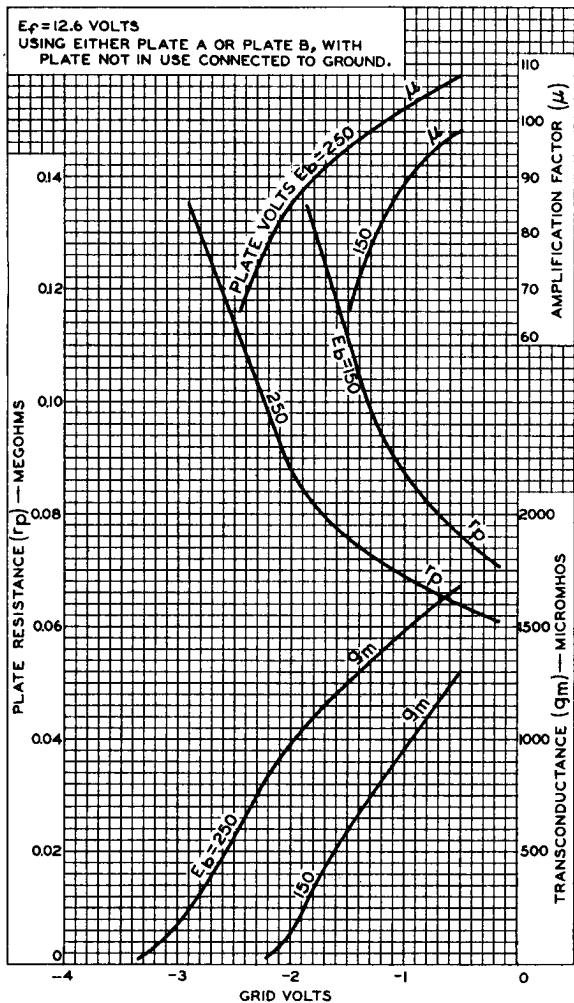


92CM-10755RI



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## AVERAGE CHARACTERISTICS Each Unit



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