

# Dual Triode

## With High-Mu Unit and Low-Mu Unit

### GENERAL DATA

#### Electrical:

Heater Characteristics and Ratings (*Design-Maximum Values*):

Voltage (AC or DC) . . . . .	6.3 ± 0.6	volts	
Current at heater volts = 6.3. . . . .	0.925	amp	
Peak heater-cathode voltage (Each unit):			
Heater negative with			
respect to cathode . . . . .	200 max.	volts	
Heater positive with			
respect to cathode . . . . .	200 <sup>a</sup> max.	volts	
Direct Interelectrode Capacitances (Approx.): <sup>b</sup>			
	<i>Unit No. 1</i>	<i>Unit No. 2</i>	
Grid to plate. . . . .	4.5	10	μf
Grid to cathode and heater . . . . .	2.2	6.5	μf
Plate to cathode and heater. . . . .	0.4	1.2	μf

#### Characteristics, Class A<sub>1</sub> Amplifier:

	<i>Unit No. 1</i>	<i>Unit No. 2</i>	
Plate Voltage. . . . .	250	60 150	volts
Grid Voltage . . . . .	-3	0 -17.5	volts
Amplification Factor . . . . .	64	- 6	
Plate Resistance (Approx.) . . . . .	40000	- 800	ohms
Transconductance . . . . .	1600	- 7500	μmhos
Plate Current. . . . .	1.4	95 <sup>c</sup> 40	ma
Grid Voltage (Approx.) for			
plate μa =,			
10 . . . . .	-5.5	- -	volts
100. . . . .	-	- -40	volts
Transconductance for plate			
ma. = 1. . . . .	-	- 500	μmhos
Plate Current for grid volts			
= -25. . . . .	-	- 6	ma

#### Mechanical:

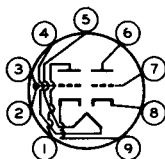
Operating Position . . . . .	. . . . . Any
Type of Cathodes . . . . .	. . . . . Coated Unipotential
Maximum Overall Length . . . . .	. . . . . 2.900"
Maximum Seated Length. . . . .	. . . . . 2.620"
Length, Base Seat to Bulb Top (Excluding tip). . . . .	. . . . . 2.070" to 2.310"
Diameter . . . . .	. . . . . 1.062" to 1.188"
Bulb . . . . .	. . . . . T9
Base . . . . .	. . . . . JEDEC No. E9-82



# 6FD7

Basing Designation for BOTTOM VIEW. . . . . 9HF

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



Pin 6 - Plate of  
Unit No.1  
Pin 7 - Grid of  
Unit No.1  
Pin 8 - Cathode of  
Unit No.1  
Pin 9 - Cathode of  
Unit No.2

## VERTICAL-DEFLECTION OSCILLATOR

*Values are for Unit No.1*

### Maximum Ratings, Design-Maximum Values:

*For operation in a 525-line, 30-frame system<sup>d</sup>*

DC PLATE VOLTAGE. . . . .	330 max.	volts
PEAK NEGATIVE-PULSE GRID VOLTAGE. . . . .	400 max.	volts
CATHODE CURRENT:		
Peak. . . . .	70 max.	ma
Average . . . . .	20 max.	ma
PLATE DISSIPATION . . . . .	1.5 max.	watts

### Maximum Circuit Values:

Grid-Circuit Resistance:

For grid-resistor-bias or cathode-bias operation. . . . . 2.2 max. megohms

## VERTICAL-DEFLECTION AMPLIFIER

*Values are for Unit No.2*

### Maximum Ratings, Design-Maximum Values:

*For operation in a 525-line, 30-frame system<sup>d</sup>*

DC PLATE VOLTAGE. . . . .	330 max.	volts
PEAK POSITIVE-PULSE PLATE VOLTAGE <sup>e</sup> . . . . .	1500 max.	volts
PEAK NEGATIVE-PULSE GRID VOLTAGE. . . . .	250 max.	volts
CATHODE CURRENT:		
Peak. . . . .	175 max.	ma
Average . . . . .	50 max.	ma
PLATE DISSIPATION . . . . .	10 max.	watts

### Maximum Circuit Values:

Grid-Circuit Resistance:

For grid-resistor-bias or cathode-bias operation. . . . . 2.2 max. megohms

<sup>a</sup> The dc component must not exceed 100 volts.

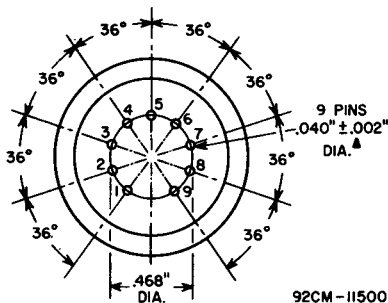
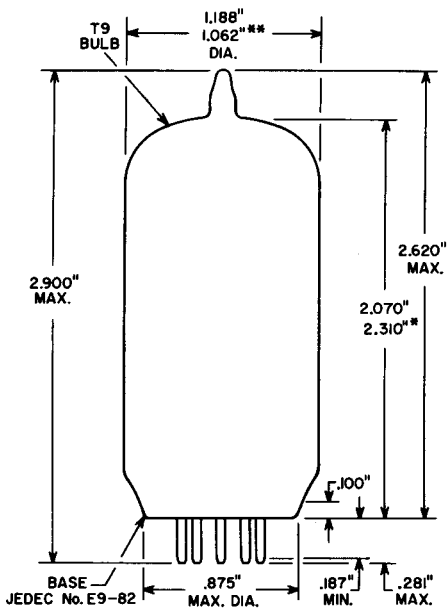
<sup>b</sup> Without external shield.

<sup>c</sup> This value can be measured by a method involving a recurrent wave form such that the maximum ratings of the tube will not be exceeded

<sup>d</sup> As described in "Standards of Good Engineering Practice Concerning Television Broadcast Stations," Federal Communications Commission.

<sup>e</sup> This rating is applicable when the duration of the voltage pulse does not exceed 15 per cent of one vertical scanning cycle. In a 525-line, 30-frame system, 15 per cent of one vertical scanning cycle is 2.5 milliseconds.





\*\* APPLIES IN ZONE STARTING 0.625" FROM BASE SEAT.

\* MEASURED FROM BASE SEAT TO BULB-TOP LINE AS DETERMINED BY A RING GAUGE OF 0.600" INSIDE DIAMETER.

▲ BASE-PIN CONTOUR AND GAUGE (JEDEC No. GE9-4) INFORMATION FOR THIS BASE IS THE SAME AS THAT SHOWN IN GENERAL SECTION FOR BASE JEDEC No. E9-68 (LARGE-BUTTON NEON VALVE 9-PIN).

