

Medium-Mu Triode- Sharp-Cutoff Pentode

9-PIN MINIATURE TYPE

Electrical:

Heater Characteristics and Ratings:

Voltage (AC or DC)	6.3 ^a	6.3 ± 0.6	volts
Current	0.450 ± 0.030	0.450 ^b	amp
Warm-up time (Average)	11	—	sec

Peak heater-cathode voltage (Each unit):

Heater negative with respect to cathode. 200 max. volts

Heater positive with respect to cathode. 200^c max. volts

Direct Interelectrode Capacitances:

	<i>Without External Shield</i>	<i>With External Shield^d</i>	
Triode Unit:			
Grid to plate	1.8	1.8	pf
Grid to cathode, pentode cathode & pentode No. 3 & internal shield, and heater.	2.8	2.8	pf
Plate to cathode, pentode cathode & pentode grid No. 3 & internal shield, and heater.	1.5	2	pf
Pentode Unit:			
Grid No. 1 to plate.	0.02 max.	0.01 max.	pf
Grid No. 1 to cathode & grid No. 3 & internal shield, grid No. 2, and heater.	5	5	pf
Plate to cathode & grid No. 3 & internal shield, grid No. 2, and heater.	2	3	pf
Pentode plate to triode plate	0.15 max.	0.03 max.	pf

Characteristics, Class A₁ Amplifier:

	<i>Triode Unit</i>	<i>Pentode Unit</i>	
Plate Voltage	125	125	volts
Grid-No. 2 Voltage	—	125	volts
Grid-No. 1 Voltage	-1	-1	volt
Amplification Factor	45	—	
Plate Resistance (Approx.)	5600	200000	ohms
Transconductance	8000	6500	μmhos
Plate Current	12	12	ma
Grid-No. 2 Current	—	4	ma
Grid-No. 1 Voltage (Approx.) for plate μ a = 20	-7.5	-9	volts

Mechanical:

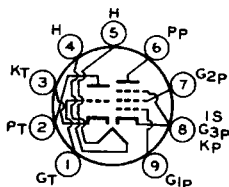
Operating Position	Any
Maximum Overall Length	2-3/16"
Maximum Seated Length	1-15/16"
Length, Base Seat to Bulb Top (Excluding tip)	1-9/16" ± 3/32"
Diameter	0.750" to 0.875"



6FV8A

Dimensional Outline See *General Section*
 Bulb. T6-1/2
 Base. Small-Button Noval 9-Pin (JEDEC No. E9-1)
 Basing Designation for BOTTOM VIEW. 9FA

Pin 1-Triode Grid
 Pin 2-Triode Plate
 Pin 3-Triode Cathode
 Pin 4-Heater
 Pin 5-Heater
 Pin 6-Pentode Plate
 Pin 7-Pentode Grid No.2
 Pin 8-Pentode Cathode, Grid No.3,
 Internal Shield
 Pin 9-Pentode Grid No.1



AMPLIFIER — Class A₁ (Pentode Unit)

Maximum Ratings, Design-Maximum Values:

Plate Voltage 330 max. volts
 Grid-No.2 (Screen-Grid) Supply Voltage. . . 330 max. volts
 Grid-No.2 Voltage See *Grid-No.2 Input*

Rating Chart at front of Receiving Tube Section

Grid-No.1 (Control-Grid) Voltage:

Positive-bias value 0 max. volts

Grid-No.2 Input:

For grid-No.2 voltages up to 165 volts. . . 0.55 max. watt

For grid-No.2 voltages between

165 and 330 volts See *Grid-No.2 Input*

Rating Chart at front of Receiving Tube Section

Plate Dissipation 2.3 max. watts

Maximum Circuit Values:

Grid-No.1-Circuit Resistance:

For fixed-bias operation. 0.25 max. megohm

For cathode-bias operation. 1 max. megohm

VERTICAL-DEFLECTION OSCILLATOR (Triode Unit)

Maximum Ratings, Design-Maximum Values:

For operation in a 525-line, 30-frame system^e

DC Plate Voltage. 330 max. volts

Peak Negative-Pulse Grid Voltage. 250 max. volts

Cathode Current:

Peak. 70 max. ma

Average 20 max. ma

Plate Dissipation 2 max. watts

Maximum Circuit Values:

Grid-Circuit Resistance:

For cathode-bias operation. 3 max. megohms

^a At heater amperes = 0.450.

^b At heater volts = 6.3.

^c The dc component must not exceed 100 volts.

^d With external shield JEDEC No.315 connected to pin 4.

^e As described in "Standards of Good Engineering Practice Concerning Television Broadcast Stations," Federal Communications Commission.

