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MEDIUM-MU TRIODE— SHARP-CUTOFF TETRODE

9-PIN MINIATURE TYPE

*Intended for use as VHF oscillator and mixer
in TV receivers having series heater-string arrangement*

GENERAL DATA

Electrical:

Heater, for Unipotential Cathodes:

Voltage.	6.3		ac or dc volts
Current.	0.45		amp
Warm-up time (Average)	11		sec

For definition of heater warm-up time and method of determining it, see sheet HEATER WARM-UP TIME MEASUREMENT at front of this Section.

Direct Interelectrode Capacitances:

	Without External Shield	With External Shield ^o	
Triode Unit:			
Grid to plate.	1.8	1.8	μf
Grid to cathode and heater	2.7	2.7	μf
Plate to cathode and heater.	0.4	1.2	μf
Tetrode Unit:			
Grid No.1 to plate	0.028 max.	0.016 max.	μf
Grid No.1 to cathode, grid No.2, and heater.	5	5	μf
Plate to cathode, grid No.2, and heater	2	3	μf
Heater to cathode.	2.5	2.5 [•]	μf

Characteristics, Class A₁ Amplifier:

	Triode Unit	Tetrode Unit	
Plate Voltage.	125	125	volts
Grid-No.2 (Screen-Grid) Voltage.	—	125	volts
Grid-No.1 (Control-Grid) Voltage.	—	—1	volt
Cathode Resistor	56	—	ohms
Amplification Factor	40	—	
Plate Resistance (Approx.)	5000	100000	ohms
Transconductance	8000	5800	μmhos
Plate Current.	15	12	ma
Grid-No.2 Current.	—	4	ma
Grid-No.1 Voltage (Approx.) for plate $\mu\text{a.} = 10$	—9	—10	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" $\pm$ 3/32"

^o, [•]: See next page.

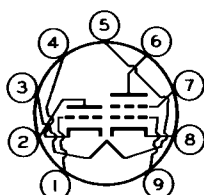
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Maximum Diameter. 7/8"
 Dimensional Outline See General Section
 Bulb. T6-1/2
 Base. Small-Button Noval 9-Pin (JETEC No.E9-1)
 Basing Designation for BOTTOM VIEW. 9FX

Pin 1—Triode Grid
 Pin 2—Triode Plate
 Pin 3—Triode
 Cathode
 Pin 4—Heater
 Pin 5—Heater
 Pin 6—Tetrode Plate



Pin 7—Tetrode
 Grid No.2
 Pin 8—Tetrode
 Cathode
 Pin 9—Tetrode
 Grid No.1

CONVERTER SERVICE

Maximum Ratings, Design-Center Values:

	Triode Unit as Osc.	Tetrode Unit as Mixer	
PLATE VOLTAGE	300 max.	300 max.	volts
GRID-No.2 (SCREEN-GRID) SUPPLY VOLTAGE.	—	300 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.	0 max.	volts
GRID-No.2 INPUT:			
For grid-No.2 voltages up to 150 volts	—	0.5 max.	watt
For grid-No.2 voltages between 150 and 300 volts	—	See Grid-No.2 Input	

Rating Chart at front of Receiving Tube Section

PLATE DISSIPATION	2.7 max.	2.8 max.	watts
PEAK HEATER-CATHODE VOLTAGE:			
Heater negative with respect to cathode.	200 max.	200 max.	volts
Heater positive with respect to cathode.	200▲ max.	200▲ max.	volts

Maximum Circuit Values:

	Triode Unit	Tetrode Unit	
Grid-No.1-Circuit Resistance:			
For fixed-bias operation	0.5 max.	0.25 max.	megohm
For cathode-bias operation	1 max.	1 max.	megohm

○, ●, ▲: See next page.



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MEDIUM-MU TRIODE— SHARP-CUTOFF TETRODE

- With external shield JETEC No.315 connected to cathode of unit under test except as noted.
- With external shield JETEC No.315 connected to ground.
- ▲ The dc component must not exceed 100 volts.