



9CL8

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MEDIUM-MU TRIODE— SHARP-CUTOFF TETRODE

9-PIN MINIATURE TYPE

*Intended for use in equipment having
series heater-string arrangement*

GENERAL DATA

Electrical:

Heater, for Unipotential Cathodes:

Voltage (AC or DC)	9.5	volts
Current	0.3 ± 6%	amp
Warm-up time (Average)	11	sec

Direct Interelectrode Capacitances

(Approx.):

	Without External Shield	With External Shield ^o	
<i>Triode Unit:</i>			
Grid to plate	1.8	1.8	μμf
Grid to cathode and heater.	2.7	2.7	μμf
Plate to cathode and heater	0.4	1.2	μμf
<i>Tetrode Unit:</i>			
Grid No.1 to plate.	0.028	0.016	μμf
Grid No.1 to cathode, grid No.2, and heater.	5	5	μμf
Plate to cathode, grid No.2, and heater.	2	3	μμf
Heater to cathode (Each unit)	2.5	2.5 [•]	μμf

Characteristics, Class A₁ Amplifier:

	Triode Unit	Tetrode Unit	
Plate Supply Voltage.	125	125	volts
Grid-No.2 Supply Voltage.	—	125	volts
Grid-No.1 Voltage	0	-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 μa = 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" ± 3/32"
Diameter.	0.750" to 0.875"
Dimensional Outline	See General Section
Bulb.	T6-1/2

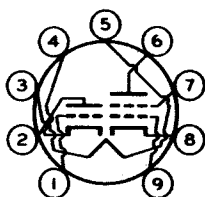


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Base. Small-Button Noval 9-Pin (JEDEC No.E9-1)
 Basing Designation for BOTTOM VIEW. 9FX

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

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	
<i>Rating Chart at front of Receiving Tube Section</i>			
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	
<i>Rating Chart at front of Receiving Tube Section</i>			
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

○ With external shield JEDEC No.315 connected to cathode of unit under test except as noted.

● With external shield JEDEC No.315 connected to ground.

▲ The dc component must not exceed 100 volts.