



6CL8-A

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MEDIUM-MU TRIODE— SHARP-CUTOFF TETRODE

9-PIN MINIATURE TYPE

*With heater having controlled warm-up time***GENERAL DATA****Electrical:**

Heater, for Unipotential Cathodes:

Voltage (AC or DC)	6.3	volts
Current	0.45 ± 6%	amp
Warm-up time (Average)	11	sec

Direct Interelectrode Capacitances:

	<i>Without External Shield</i>	<i>With External Shield^o</i>	
Triode Unit:			
Grid to plate	1.8	1.8	μμf
Grid to cathode, tetrode cathode & internal shield, and heater	2.8	2.8	μμf
Plate to cathode, tetrode cathode & internal shield, and heater	1.5	2	μμf
Tetrode Unit:			
Grid No.1 to plate	0.02 max.	0.01 max.	μμf
Grid No.1 to cathode & internal shield, grid No.2, and heater	5	5	μμf
Plate to cathode & internal shield, grid No.2, and heater	2	3	μμf
Tetrode grid No.1 to triode plate	0.015 max.	0.01 max.	μμf
Tetrode plate to triode plate	0.15 max.	0.03 max.	μμf
Heater to cathode (Each Unit) .	3	3 [•]	μμf

Characteristics, Class A₁ Amplifier:

	<i>Triode Unit</i>	<i>Tetrode Unit</i>	
Plate Voltage	125	100 125	volts
Grid-No.2 Voltage	—	70 125	volts
Grid-No.1 Voltage	—1	— —1	volt
Amplification Factor	40	— —	
Plate Resistance (Approx.) . . .	5000	— 200000	ohms
Transconductance	8000	7000 6500	μmhos
Plate Current	14	— 12	ma
Grid-No.2 Current	—	— 4	ma
Grid-No.1 Voltage (Approx.) for plate μa = 20	—9	— —9	volts

← Indicates a change.

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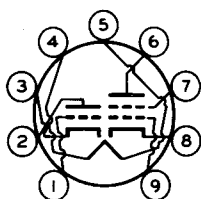
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Mechanical:

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"
 Diameter. 0.750" to 0.875"
 Dimensional Outline. See General Section
 Bulb. T6-1/2
 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,
 Internal
 Shield
 Pin 9—Tetrode
 Grid No. 1

CONVERTER

Maximum Ratings, Design-Maximum Values:

	Triode Unit as Osc.	Tetrode Unit as Mixer	
PLATE VOLTAGE.	330 max.	330 max.	volts
GRID-No. 2 (SCREEN-GRID) SUPPLY VOLTAGE.	—	330 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 165 volts.	—	0.55 max.	watt
For grid-No. 2 voltages between 165 and 330 volts.	—	See Grid-No. 2 Input	
<i>Rating Chart at front of Receiving Tube Section</i>			
PLATE DISSIPATION.	2.5 max.	3 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

→ Indicates a change.



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Maximum Circuit Values:

	<i>Triode Unit</i>	<i>Tetrode Unit</i>	
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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.