



6CL8-A

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:

	Without External Shield	With External Shield ⁰	
Triode Unit:			
Grid to plate.	1.8	1.8	μf
Grid to cathode, tetrode cathode & internal shield, and heater	2.8	2.8	μf
Plate to cathode, tetrode cathode & internal shield, and heater	1.5	2	μf
Tetrode Unit:			
Grid No.1 to plate	0.02 max.	0.01 max.	μf
Grid No.1 to cathode & internal shield, grid No.2, and heater	5	5	μf
Plate to cathode & internal shield, grid No.2, and heater	2	3	μf
Tetrode grid No.1 to triode plate.	0.015 max.	0.01 max.	μf
Tetrode plate to triode plate.	0.15 max.	0.03 max.	μf
Heater to cathode (Each Unit).	3	3 [•]	μf

Characteristics, Class A₁ Amplifier:

	Triode Unit	Tetrode Unit	
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	—	20000 ohms
Transconductance	8000	7000	6500 μmhos
Plate Current.	14	—	12 ma
Grid-No.2 Current.	—	—	4 ma
Grid-No.1 Voltage (Approx.) for plate $\mu_a = 20$	—9	—	—9 volts

← Indicates a change.



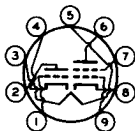
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Mechanical:

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	
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 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.	2.5 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>	
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.