

July 15, 1963

TRIODE-TETRODE TYPE 19CL8A

The 19CL8A is a 9-pin miniature triode-tetrode type designed for combined oscillator-mixer service in television and frequency modulation receivers. Each section of the 19CL8A has a separate cathode and is electrically independent. It performs well at the higher frequencies and may be used advantageously in applications normally requiring two tubes.

ELECTRICAL

Cathode..... Coated Unipotential
Heater:
Voltage (ac or dc)..... 18.9 Volts
Current..... 0.15 Ampere
Direct Interelectrode Capacitances:

Shielded Unshielded

Triode Unit:

Grid to Plate..... 1.8 pf
Input..... 2.8 pf
Output..... 2.0 pf

Tetrode Unit:

Grid 1 to Plate..... 0.01 pf
Input..... 5.0 pf
Output..... 3.0 pf

Coupling:

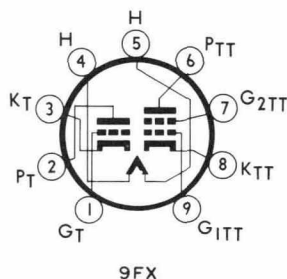
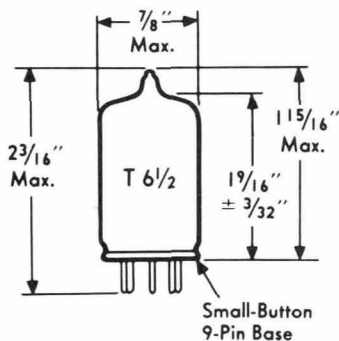
Tetrode Grid 1 to Triode
Plate..... 0.01 (Note 1) 0.015 max. pf
Tetrode Plate to Triode
Plate..... 0.03 (Note 1) 0.15 max. pf

Heater to Cathode:

Tetrode Unit..... 3.0 (Note 2) pf
Triode Unit..... 3.0 (Note 2) pf

MECHANICAL

Bulb..... T-6½
Base..... 9-Pin Miniature (JEDEC E9-1)
Outline..... 6-2
Basing..... 9FX
Mounting Position..... Any



MAXIMUM RATINGS

Design Maximum Values	Triode Unit	Tetrode Unit	
Plate Voltage.....	330	330 max.	Volts
Grid 2 Supply Voltage.....	—	330 max.	Volts
Grid 2 Voltage.....	See Grid 2 Input Rating Curve		
Grid 1 Voltage:			
Positive Bias Value.....	0	0 max.	Volts
Plate Dissipation.....	2.5	3.0 max.	Volts
Grid 2 Dissipation.....	—	0.55 max.	Watt
Grid 1 Circuit Resistance:			
Fixed Bias.....	0.5	0.25 max.	Megohm
Cathode Resistor Bias...	1.0	1.0 max.	Megohm
Heater-Cathode Voltage			
Heater Negative with Respect to Cathode			
Total DC + Peak.....	200 max.	200 max.	Volts
Heater Positive with Respect to Cathode			
DC Component.....	100 max.	100 max.	Volts
Total DC + Peak.....	200 max.	200 max.	Volts

TYPICAL OPERATING CHARACTERISTICS

	Triode Unit	Tetrode Unit	
Plate Voltage.....	125	125	Volts
Grid 2 (Screen) Voltage.....	—	125	Volts
Grid 1 Voltage.....	—1	—1	Volts
Amplification Factor.....	40	—	
Plate Resistance (Approx.).....	5000	200,000	Ohms
Transconductance.....	8000	6500	μmhos
Grid 1 Cutoff Bias (Note 3).....	—9	—9	Volts
Plate Current.....	14	12	Ma
Grid 2 Current.....	—	4	Ma

NOTES

1. External shield No. 315 tied to pin 4.
2. External shield No. 315 tied to pin 6.
3. For plate current of 20 microamperes.

NOTICE: For characteristic curves, see data sheet for types 5CL8A & 6CL8A.

PRINTED IN U.S.A.

The information contained herein is supplied without assuming responsibility for infringement of patents or other rights of third parties which may result from its use. No license is granted by implication or otherwise under any patent or patent rights of Westinghouse Electric Corporation.

WESTINGHOUSE ELECTRIC CORPORATION, ELECTRONIC TUBE DIVISION, ELMIRA, NEW YORK

Receiving Tube Section