




7A8

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OCTODE CONVERTER

Heater	Coated Unipotential Cathode		
Voltage	6.3 \square	a-c or d-c volts	
Current	0.15 \square	amp.	
Direct Interelectrode Capacitances: ^o			
Grid No.4 to Plate		0.15 max. μ f	←
Grid No.4 to Grid No.2		0.15 μ f	
Grid No.4 to Grid No.1		0.15 μ f	
Grid No.1 to Grid No.2		0.60 μ f	
Grid No.4 to All Other Electrodes = R-F Input		7.5 μ f	
Grid No.2 to All Other Electrodes Except Grid No.1 (Osc. Output)		3.4 μ f	
Grid No.1 to All Other Electrodes Except Grid No.2 (Osc. Input)		3.8 μ f	
Plate to All Other Electrodes		9 μ f	
Maximum Overall Length		2-25/32"	
Maximum Seated Height		2-1/4"	
Maximum Diameter		1-3/16"	
Bulb		T-9	
Base		Lock-in 8-Pin	
Pin 1 - Heater		Pin 6 - Grid #4	
Pin 2 - Plate		Pin 7 - Cathode	
Pin 3 - Grid #2		Pin 8 - Heater	
Pin 4 - Grid #1		Plug - Base Shell	
Pin 5 - Grids #3 & #5			
Mounting Position		Any	



BOTTOM VIEW (8U)

CONVERTER SERVICE

Plate Voltage		300 max.	volts
Screen (Grids #3 & #5) Voltage		100 max.	volts
Screen Supply Voltage		300 max.	volts
Anode-Grid (Grid #2) Voltage		200 max.	volts
Anode-Grid Supply Voltage		300 max.	volts
Control-Grid (Grid #4) Voltage		0 min.	volts
Plate Dissipation		1.0 max.	watt
Screen Dissipation		0.3 max.	watt
Anode-Grid Dissipation		0.75 max.	watt
Total Cathode Current		13 max.	ma.

Typical Operation and Characteristics:

Plate Voltage	100	250	volts
Screen Voltage	75	100	volts
Anode-Grid Voltage	100	-	volts
Anode-Grid Supply Voltage Δ	-	250	volts
Control-Grid Voltage	-3	-3	volts
Oscillator-Grid (Grid #1) Res.	50000	50000	ohms
Plate Resistance	0.65	0.7	approx. megohm
Conversion Transconductance	375	550	μ mhos
Conversion Transconductance for Grid Bias of -30 volts	-	2	approx. μ mhos
Plate Current	1.8	3.0	ma.
Screen Current	2.7	3.2	ma.
Anode-Grid Current	2.8	4.2	ma.
Oscillator-Grid Current	0.2	0.4	ma.
Total Cathode Current	8.5	10.8	ma.

NOTE: The transconductance between Grid #1 and Grid #2 (not oscillating) is approximately 1600 μ mhos under the following conditions: plate volts, 250; screen volts, 100; anode-grid volts, 180; oscillator-grid volts, 0; and control-grid connected to cathode.

- \blacksquare In circuits where the cathode is not directly connected to the heater, the potential difference between heater and cathode should be kept as low as possible.
- \square With close-fitting shield connected to cathode.
- \square Nominal voltage = 7.0 volts.
- \square Nominal current = 0.16 ampere.
- Δ Applied through a properly by-passed 20000-ohm voltage-dropping resistor.

← Indicates a change.

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RCA RADIOTRON DIVISION
RCA MANUFACTURING COMPANY, INC.

DATA