

6K8
6K8-G
6K8-GT

6K8, 6K8-G, 6K8-GT

TRIODE-HEXODE CONVERTER

Heater Coated Unipotential Cathode

Voltage 6.3 a-c or d-c volts

Current 0.3 amp.

Direct Interelectrode Capacitances:

	6K8 ^o	6K8-G [▲]	6K8-GT [▲]
Hexode Grid #3 to Hexode Plate	0.03	0.08	0.08 max. μ uf
Hexode Grid #3 to Triode Plate	0.02	0.05	0.05 max. μ uf
Hexode Grid #3 to Triode Grid & Hexode Grid #1	0.2	0.2	0.2 max. μ uf
Triode Grid & Hexode Grid #1 to Triode Plate	1.1	1.8	1.8 μ uf
Triode Grid & Hexode Grid #1 to Hexode Plate	0.1	0.15	0.15 max. μ uf
Hexode Grid #3 to All Other Electrodes (R-F Input)	6.6	4.6	4.6 μ uf
Triode Plate to All Other Electrodes Except Triode Grid & Hexode Grid #1 (Osc. Output)	3.2	3.4	3.4 μ uf
Triode Grid & Hexode Grid #1 to All Other Electrodes Except Triode Plate (Osc. Input)	6.0	6.5	6.5 μ uf
Hexode Plate to All Other Electrodes (Mixer Output)	3.5	4.8	4.8 μ uf

Overall Length { 3-1/8" max. } { 4-7/32" to 4-15/32" } { 3-9/16" max. }

Seated Height { 2-9/16" max. } { 3-21/32" to 3-29/32" } { 3" max. }

Maximum Diameter { 1-5/16" } { 1-9/16" } { 1-5/16" }

Bulb { Metal Shell, MT-8 } { ST-12 } { T-9 }

Cap { Miniature } { Skirted Min. } { Skirted Min. }

Base { Small Wafer Octal 8-Pin } { Sm. Shell Oct. 8-Pin } { Sm. Wafer Oct. 8-Pin, Sleeve GT-8K }

Basing Designation

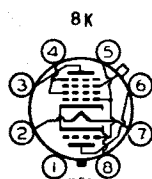
Pin 1 { 6K8, Shell }
 { 6K8-G, No Con. }
 { 6K8-GT, Sleeve }

Pin 2 - Heater

Pin 3 - Hexode Plate

Pin 4 - Hexode Grids #2 & #4

Mounting Position



BOTTOM

VIEW

CONVERTER SERVICE

Hexode Plate Voltage	300 max. volts
Hexode Screen (Grids #2 & #4) Voltage	150 max. volts
Hexode Screen Supply Voltage	300 max. volts
Hexode Control-Grid (Grid #3) Voltage	0 min. volts
Triode Plate Voltage	125 max. volts
Hexode Plate Dissipation	0.75 max. watt
Hexode Screen Dissipation	0.7 max. watt
Triode Plate Dissipation	0.75 max. watt
Total Cathode Current	16 max. ma.

Typical Operation:

Hexode Plate Voltage	100	250	volts
Hexode Screen Voltage	100	100	volts
Hexode Control-Grid Voltage	-3	-3	volts
Triode Plate Voltage	100	100	volts
Triode Grid Resistor	50000	50000	ohms
Hexode Plate Resistance (approx.)	0.4	0.6	megohm
Conversion Transconductance	325	350	μ mhos
Conversion Transcond. with Hexode Grid #3 Bias of -30 volts (approx.)	2	2	μ mhos
Hexode Plate Current	2.3	2.5	ma.
Hexode Screen Current	6.2	6.0	ma.
Triode Plate Current	3.8	3.8	ma.
Triode Grid & Hexode Grid #1 Current	0.15	0.15	ma.
Total Cathode Current	12.5	12.5	ma.

NOTE: The transconductance of the triode section, not oscillating, is approximately 3000 μ mhos when the triode plate volts=100 and the triode grid volts = 0.

□ 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.

▲ With close-fitting shield connected to cathode.

○ With shell connected to cathode.

← Indicates a change.

May 1, 1941

RCA RADIODRON DIVISION
 RCA MANUFACTURING COMPANY, INC.

DATA

6K8



6K8

OPERATION CHARACTERISTICS

 $E_f = 6.3$ VOLTS

CURVE

HEXODE PLATE VOLTS

----- 100

----- 250

TRIODE PLATE VOLTS

100

100

HEXODE SCREEN (GRIDS № 2 & 4) VOLTS

100

100

HEXODE CONTROL - GRID (GRID № 3) VOLTS

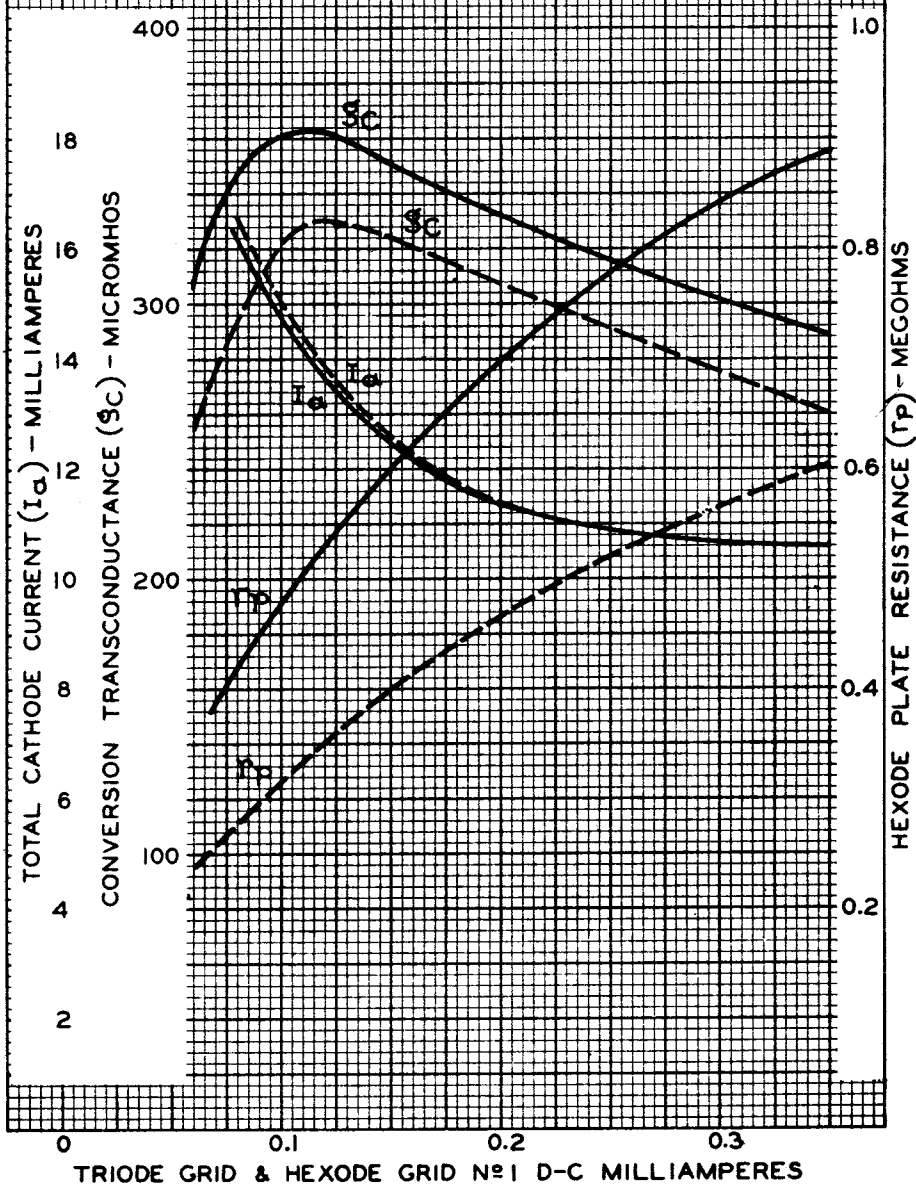
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TRIODE GRID RESISTOR (OHMS)

50000

50000



APRIL 8, 1938

RCA RADITRON DIVISION
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