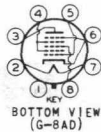


6SA7
6SA7-GT/G

6SA7, 6SA7-GT/G

PENTAGRID CONVERTER

Heater	Coated Unipotential Cathode	
Voltage	6.3	a-c or d-c volts
Current	0.3	amp.
Direct Interelectrode Capacitances:	6SA7	6SA7-GT/G
Grid #3 to All Other Electrodes (R-F Input)	9.5 [▲]	11 ^{▲▲} μf
Plate to All Other Electrodes (Mixer Output)	12 [▲]	11 ^{▲▲} μf
Grid #1 to All Other Electrodes (Osc. Input)	7 [▲]	8 ^{▲▲} μf
Grid #3 to Plate	0.13 max. [▲]	0.5 max. ^{▲▲} μf
Grid #3 to Grid #1	0.15 max. [▲]	0.4 max. ^{▲▲} μf
Grid #1 to Plate	0.06 max. [▲]	0.2 max. ^{▲▲} μf
Grid #1 to Shell, Grid #5, and All Other Electrodes except Cathode	4.4	- μf
Grid #1 to All Other Electrodes except Cathode & Grid #5	-	5 μf
Grid #1 to Cathode	2.6	- μf
Grid #1 to Cathode & Grid #5	-	3 μf
Cathode to Shell, Grid #5, and All Other Electrodes except Grid #1	5	- μf
Cathode and Grid #5 to All Other Electrodes except Grid #1	-	14 μf
Maximum Overall Length	2-5/8"	3-5/16"
Maximum Seated Height	2-1/16"	2-3/4"
Maximum Diameter	1-5/16"	1-5/16"
Bulb	Metal Shell MT-8	T-9
Base	{ Small Wafer { Octal 8-Pin	{ Intermed. Sh. { Octal 8-Pin
Pin 1	{ 6SA7, Shell, Grid #5 { 6SA7-GT/G, No Conn.	
Pin 2	Heater	
Pin 3	Plate	
Pin 4	Grids #2 & #4	
Pin 5	Grid #1	
Pin 6	{ 6SA7, Cathode { 6SA7-GT/G, Cathode & Grid #5	
Pin 7	Heater	
Pin 8	Grid #3	
Mounting Position	Any	



Maximum And Minimum Ratings Are Design-Center Values

CONVERTER SERVICE

Plate Voltage	300 max. volts
Grids #2 & #4 Voltage	100 max. volts
Grids #2 & #4 Supply Voltage	300 max. volts
Grid #3 Voltage *	0 min. volts
Plate Dissipation	1.0 max. watt
Screen Dissipation	1.0 max. watt
Total Cathode Current	14 max. ma.

- 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 shell connected to cathode.
- ▲▲ With external shield connected to cathode.
- * For self-excited oscillator.
- ← Indicates a change.

Jan. 1, 1943

RCA VICTOR DIVISION
 RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY

DATA



6SA7, 6SA7-GT/G PENTAGRID CONVERTER

(continued from preceding page)

Characteristics:

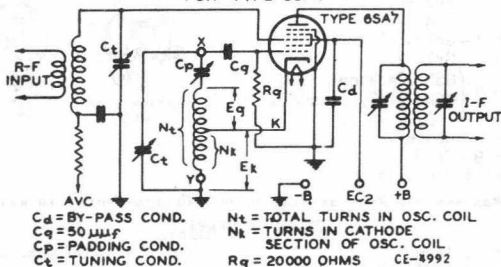
	Self-excitation*		Separate Excitation		
Plate Voltage	100	250	100	250	volts
Grids #2 & #4 Volt.	100	100	100	100	volts
Grid #3 (Control) Volt.	0	0	-2	-2	volts
Grid #1 Resistor	20000	20000	20000	20000	ohms
Plate Res. (Approx.)	0.5	1.0	0.5	1.0	megohm
Conversion Transcond.	425	450	425	450	μmhos
Conversion Transcond. (Approx.) †	2	2	2	2	μmhos
Plate Current	3.3	3.5	3.3	3.5	ma.
Grids #2 & #4 Current	8.5	8.5	8.5	8.5	ma.
Grid #1 Current	0.5	0.5	0.5	0.5	ma.
Total Cathode Current	12.3	12.5	12.3	12.5	ma.

NOTE: The transconductance between Grid #1 and Grids #2 & #4 connected to plate (not oscillating) is approximately 4500 μmhos under the following conditions: Grids #1, #3, and shell at 0 volts; Grids #2 & #4 and plate at 100 volts.

* Characteristics are approximate only and are shown for a Hartley circuit with a feedback of approximately 2 volts peak in the cathode circuit.

† With Grid #3 bias of -35 volts.

TYPICAL SELF-EXCITED CONVERTER CIRCUIT FOR TYPE 6SA7

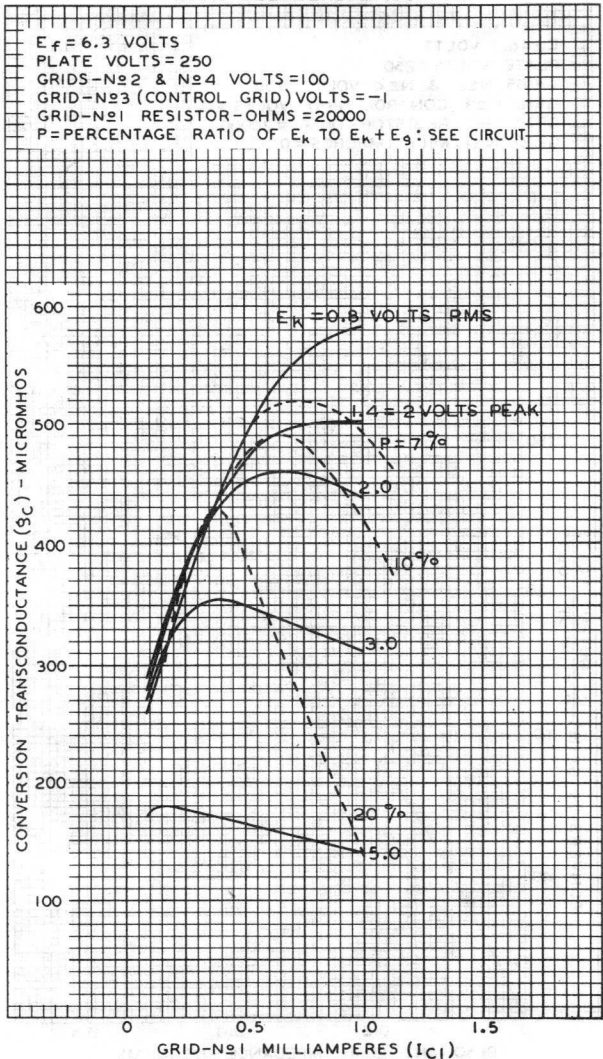


The license extended to the purchaser of tubes appears in the License Notice accompanying them. Information contained herein is furnished without assuming any obligations.



6SA7

6SA7

OPERATION CHARACTERISTICS
WITH SELF-EXCITATION

NOV. 2, 1938

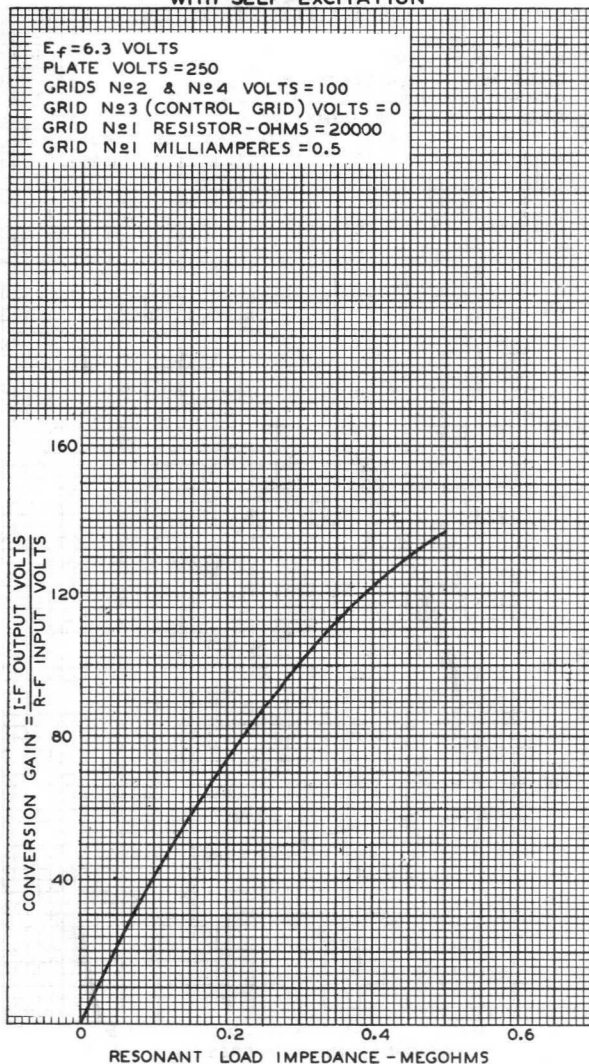
RCA RADOTRON DIVISION
RCA MANUFACTURING COMPANY, INC.

92C-4993

6SA7



6SA7

OPERATION CHARACTERISTIC
WITH SELF-EXCITATION

APR. 25, 1941

RCA RADOTRON DIVISION
RCA MANUFACTURING COMPANY, INC.

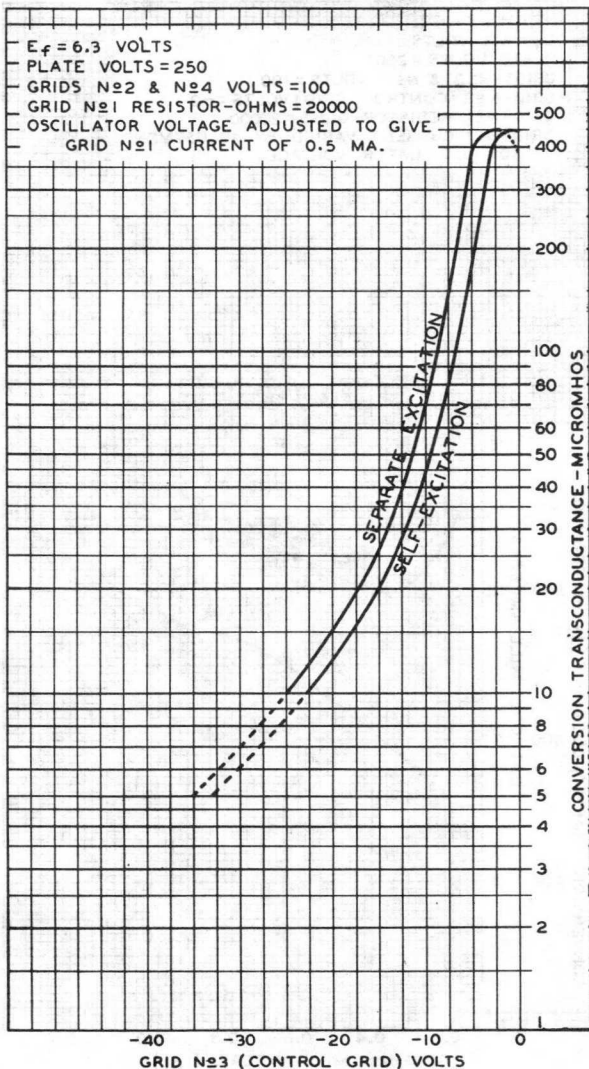
CE-4994



6SA7

6SA7

OPERATION CHARACTERISTICS



OCT. 25, 1938

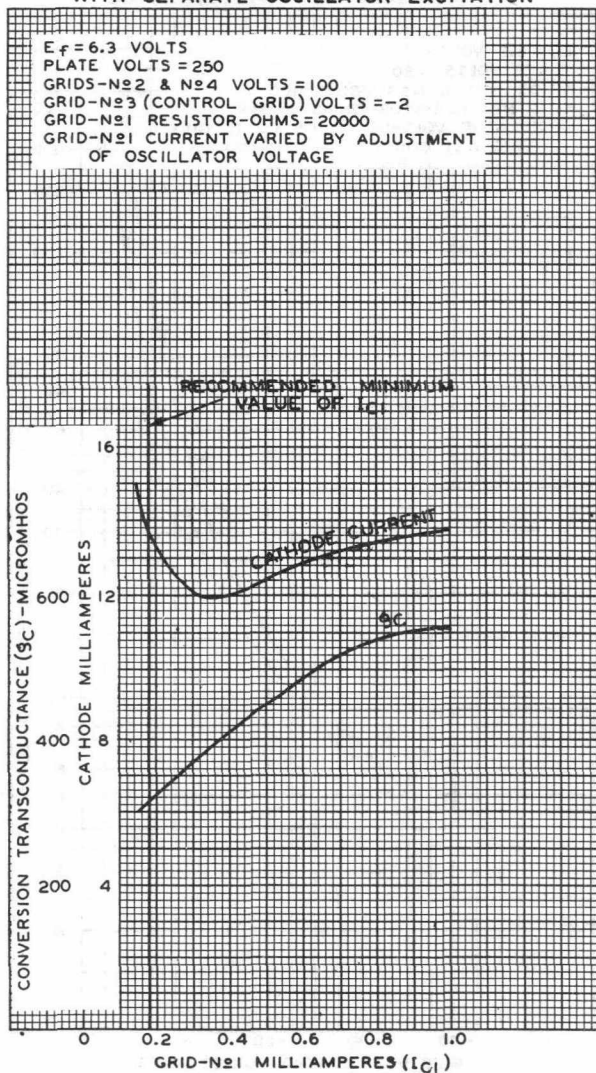
RCA RADOTRON DIVISION
RCA MANUFACTURING COMPANY, INC.

92C-4989

6SA7



6SA7

OPERATION CHARACTERISTICS
WITH SEPARATE OSCILLATOR EXCITATION

APR. 24, 1941

RCA RADIOTRON DIVISION
RCA MANUFACTURING COMPANY, INC.

92C-4990RI