



1A7-GT/G

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PENTAGRID CONVERTER

Filament	Coated		
Voltage	1.4		d-c volts
Current	0.05		amp.
Direct Interelectrode Capacitances: ^o			
Grid #4 to Plate		0.5 max.	μf
Grid #4 to Grid #2		0.4 max.	μf
Grid #4 to Grid #1		0.2 max.	μf
Grid #1 to Grid #2		0.9	μf
Grid #4 to All Other Electrodes (R-F Input)		7.0	μf
Grid #2 to All Other Electrodes Except			
Grid #1 (Osc. Output)		4.4	μf
Grid #1 to All Other Electrodes Except			
Grid #2 (Osc. Input)		3.4	μf
Plate to All Other Electrodes (Mixer Output)		10	μf
Maximum Overall Length			3-5/16"
Maximum Seated Height			2-3/4"
Maximum Diameter			1-5/16"
Bulb			T-9
Cap			Skirted Miniature
Base			Small Wafer Octal 8-Pin, Sleeve
Pin 1 - Base Sleeve			Pin 6 - Grid #2
Pin 2 - Filament +			Pin 7 - Filament -
Pin 3 - Plate			Pin 8 - No Connection
Pin 4 - Grids #3 & #5			Cap - Grid #4
Pin 5 - Grid #1			
Mounting Position			Any



BOTTOM VIEW (GT-7Z)

Maximum Ratings Are Design-Center Values

CONVERTER SERVICE

Plate Voltage	110 max.	volts
Screen (Grids #3 & #5) Voltage	60 max.	volts
Screen Supply Voltage	110 max.	volts
Anode-Grid (Grid #2) Voltage	110 max.	volts
Total Zero-Sig. Cathode Current	4 max.	ma.
Typical Operation:		
Plate	90	volts
Screen **	45	volts
Anode-Grid	90	volts
Control-Grid (Grid #4)*	0	volts
Oscillator-Grid (Grid #1) Resistor	200000	ohms
Plate Res.	0.6	megohm
Conversion Transcond.	250	μmhos
Conversion Transcond. with Grid #4 bias of -3 volts	5 approx.	μmhos
Plate Cur.	0.6	ma.
Screen Cur.	0.7	ma.
Anode-Grid Cur.	1.2	ma.
Oscillator-Grid Cur.	0.035	ma.
Total Cathode Cur.	2.5	ma.

NOTE: The transconductance of the oscillator portion (not oscillating) is 550 micromhos under the following conditions: plate volts, 90; screen volts, 45; control-grid volts, 0; anode-grid volts, 90; and oscillator-grid volts, 0.

** With external shield connected to negative filament terminal. Obtained preferably by using a properly by-passed 45000- to 75000-ohm voltage-dropping resistor in series with the 90-volt supply.

* A resistance of at least 1.0 megohm should be in the grid return to negative filament pin. ← indicates a change.

Typical Pentagrid Converter Circuit is shown under type 1A6.

Jan. 1, 1943

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

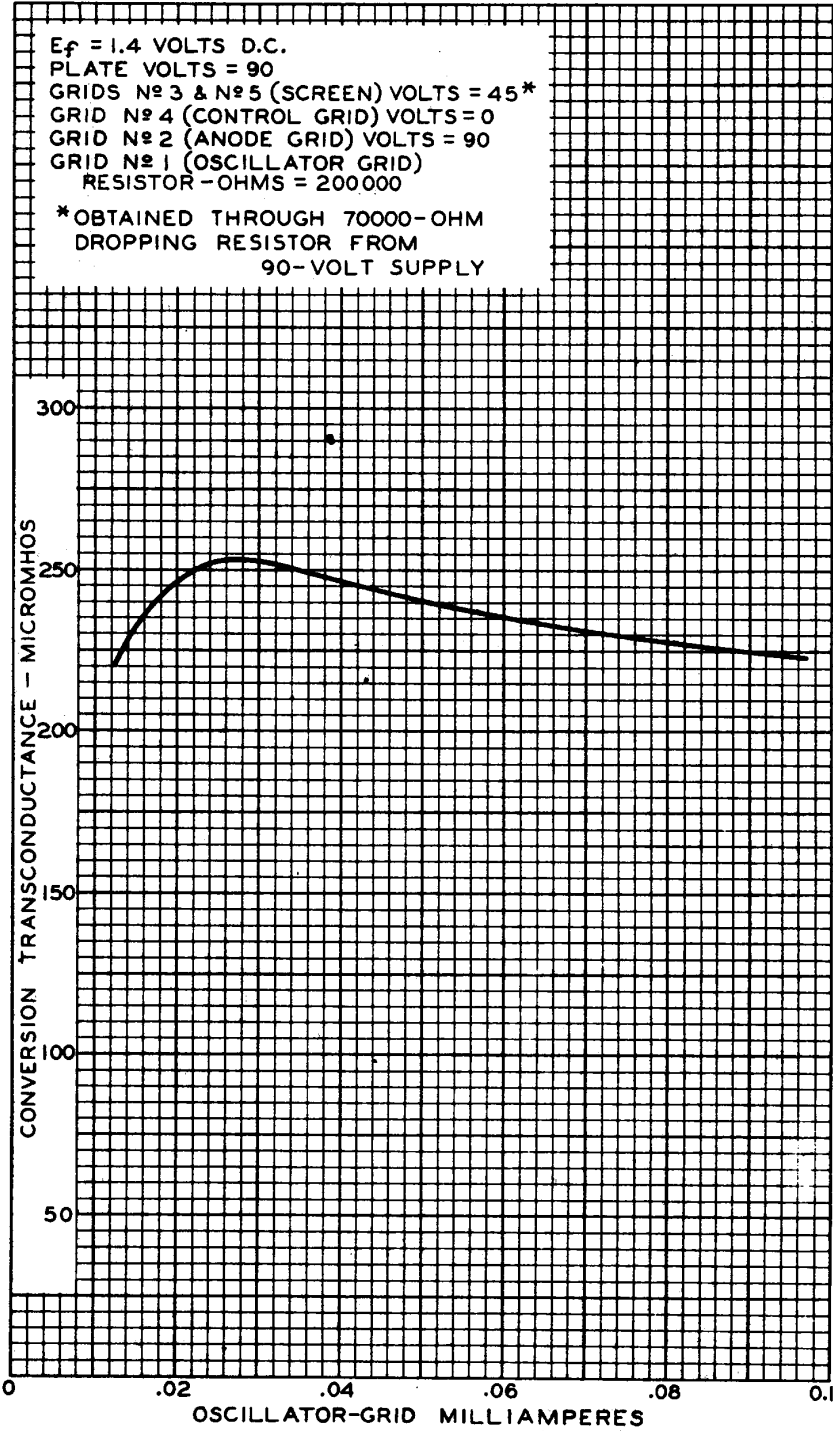
DATA

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OPERATION CHARACTERISTIC



OCT. 23, 1939

RCA VICTOR DIVISION
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