



3Q4

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POWER AMPLIFIER PENTODE

MINIATURE TYPE

Filament	Coated		
Filament Arrangement	<u>Series*</u>	<u>Parallel*</u>	
Voltage	2.8	1.4	d-c volts
Current	0.05	0.1	amp.
Maximum Overall Length			2-1/8"
Maximum Seated Height			1-7/8"
Maximum Diameter			3/4"
Bulb			T-5-1/2
Base [▲]			Miniature Button 7-Pin
Pin 1 - Fil. (-series)			Pin 5 - Filament Mid-Tap
Pin 2 - Plate			(-parallel)
Pin 3 - Grid			Pin 6 - Plate
Pin 4 - Screen			Pin 7 - Filament+
Mounting Position			Any



BOTTOM VIEW (7BA)

AMPLIFIER

Filament Arrangement	<u>Series*</u>	<u>Parallel*</u>	
Plate Voltage	90 max.	90 max.	volts
Screen Voltage	90 max.	90 max.	volts
Total Cathode Current	6#max.	12 max.	ma.
<i>Typical Operation and Characteristics - Class A₁ Amplifier:</i>			
Plate Voltage	90	85	90 volts
Screen Voltage	90	85	90 volts
Grid Voltage	-4.5	-5	-4.5 volts
Peak A-F Grid Volt.	4.5	5	4.5 volts
Zero-Sig. Plate Cur.	7.7	6.9	9.5 ma.
Zero-Sig. Screen Cur.	1.7	1.5	2.1 ma.
Plate Res. (approx.)	0.12	0.12	0.1 megohm
Transconductance	2000	1975	2150 μmhos
Load Resistance	10000	10000	10000 ohms
Total Harmonic Dist.	7	10	7 %
Max.-Sig. Power Output	0.24	0.25	0.27 watt

* For series filament arrangement, filament voltage is applied between pins No.1 and No.7. The grid voltage is referred to pin No.1. For parallel filament arrangement, filament voltage is applied between pin No.5 and pins No.1 and No.7 connected together. The grid voltage is referred to pin No.5.

For each 1.4-volt filament section. For series operation of the sections, a shunting resistor must be connected across the section between pins No.1 and No.5 to by-pass any cathode current in this section which is in excess of the rated maximum per section. When other tubes in a series-filament arrangement contribute to the filament current of the 3Q4, an additional shunting resistor may be required between pins No.1 and No.7.

▲ The center hole in sockets designed for this base provides for the possibility that this tube type may be manufactured with the exhaust-tube tip at the base end. For this reason, it is recommended that, in equipment employing this tube type, no material be permitted to obstruct the socket hole.

May 1, 1941

RCA RADIOTRON DIVISION
RCA MANUFACTURING COMPANY, INC.

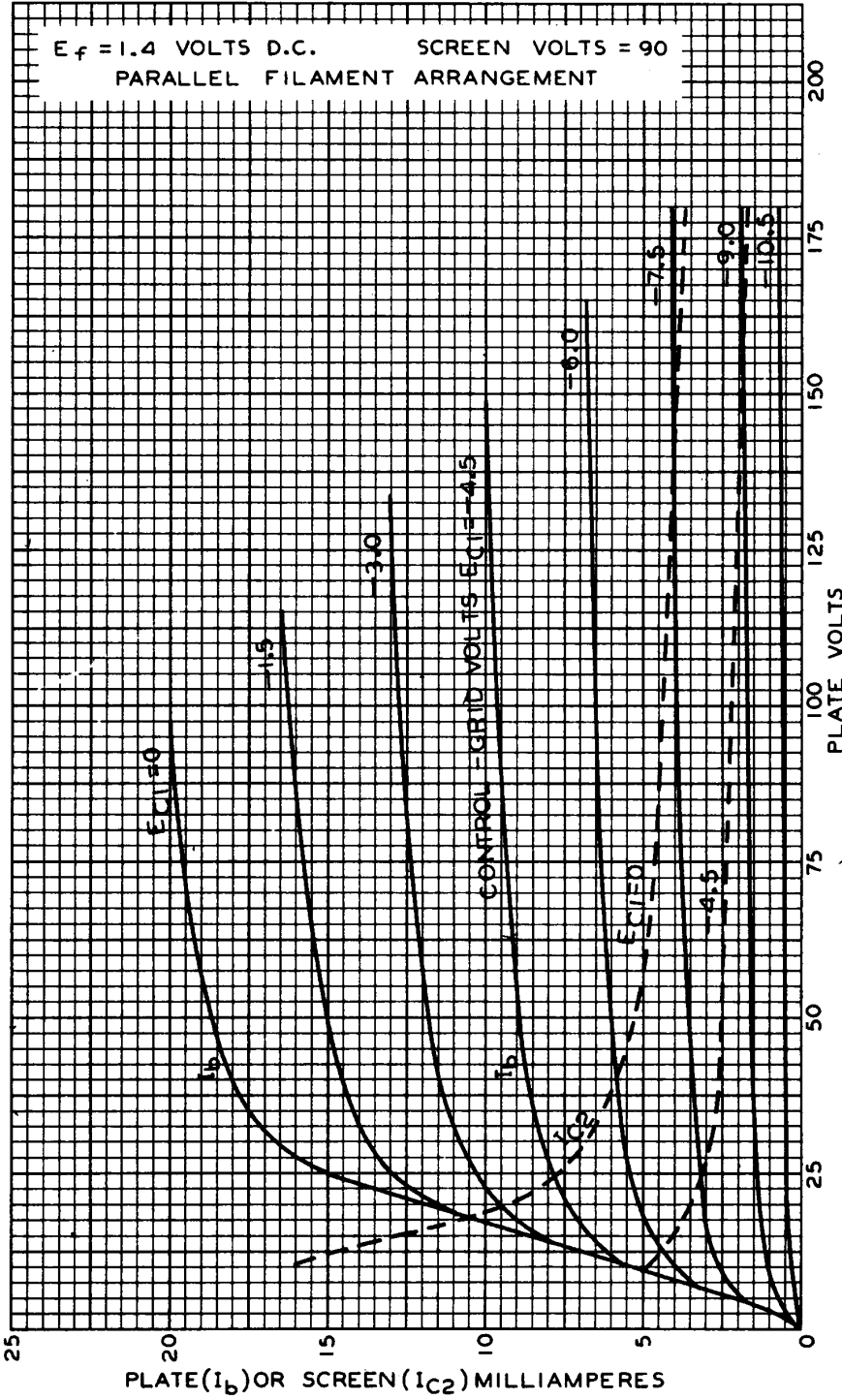
TENTATIVE DATA

3Q4



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AVERAGE PLATE CHARACTERISTICS



APR. 22, 1941

TUBE DIVISION
RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY

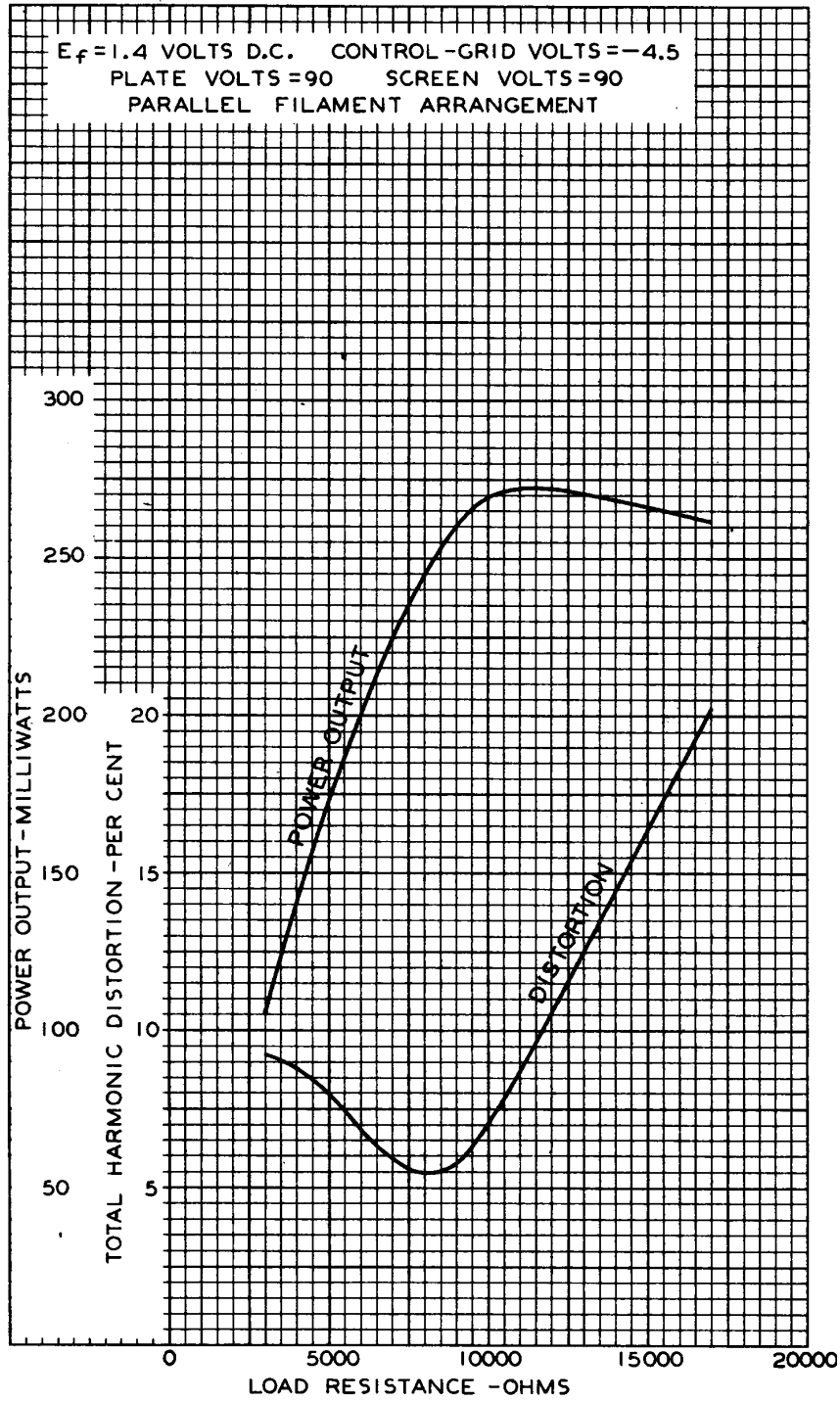
92C-6255 R1



3Q4

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OPERATION CHARACTERISTICS



MAY 7, 1941

TUBE DIVISION
RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY

92C-6281