



9003

9003

**SUPER-CONTROL R-F AMPLIFIER PENTODE**

MIDGET TYPE

Heater	Coated Unipotential Cathode	
Voltage	6.3	a-c or d-c volts
Current	0.15	amp.
Direct Interelectrode Capacitances;		
Grid to Plate	0.01 max.	$\mu\text{f}$
Input	3.4	$\mu\text{f}$
Output	3.0	$\mu\text{f}$
Maximum Overall Length		1-13/16"
Maximum Seated Height		1-9/16"
Length from Base Seat to Bulb Top (excluding tip)		1-3/16" $\pm$ 3/32"*
Maximum Diameter		3/4"
Bulb		T-5-1/2
Base <sup>A</sup>	Miniature Button 7-Pin	
Pin 1 - Grid		Pin 5 - Plate
Pin 2 - Cathode		Pin 6 - Screen
Pin 3 - Heater		Pin 7 - { Cathode, Grid No. 3, Internal Shield
Pin 4 - Heater		
RCA Socket		Stock No. 9914
Mounting Position	BOTTOM VIEW	Any



Maximum and Minimum Ratings Are Design-Center Values  
**AMPLIFIER**

Plate Voltage	250 max.	volts
Screen Voltage	100 max.	volts
Grid Voltage	-3 min.	volts
Plate Dissipation	1.7 max.	watts
Screen Dissipation	0.3 max.	watt

**Typical Operation and Characteristics - Class A<sub>1</sub> Amplifier:**

Plate Voltage	250	volts
Screen Voltage	100	volts
Grid Voltage	-3	volts
Plate Resistance	0.7 approx.	megohm
Transconductance	1800	$\mu\text{mhos}$
Grid Bias for Transcond. of 15 $\mu\text{mhos}$	-35	volts
Grid Bias for Transcond. of 2 $\mu\text{mhos}$	-45	volts
Plate Current	6.7	ma.
Screen Current	2.7	ma.

**Typical Operation as Mixer in Superheterodyne Circuit:**

Plate Voltage	100	250	volts
Screen Voltage	100	100	volts
Grid Voltage #	-10	-10 approx.	volts
Conversion Transconductance		600 approx.	$\mu\text{mhos}$

\* The grid bias is minimum for an oscillator peak voltage of 9 volts. These values are optimum.

<sup>A</sup> 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.

Shielding Considerations & Heater-Cathode Connections for the 9003 are the same as for Type 9001.

← Indicates a change.

\* Temporary minimum length = 1-1/16".

OCT. 1, 1943

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

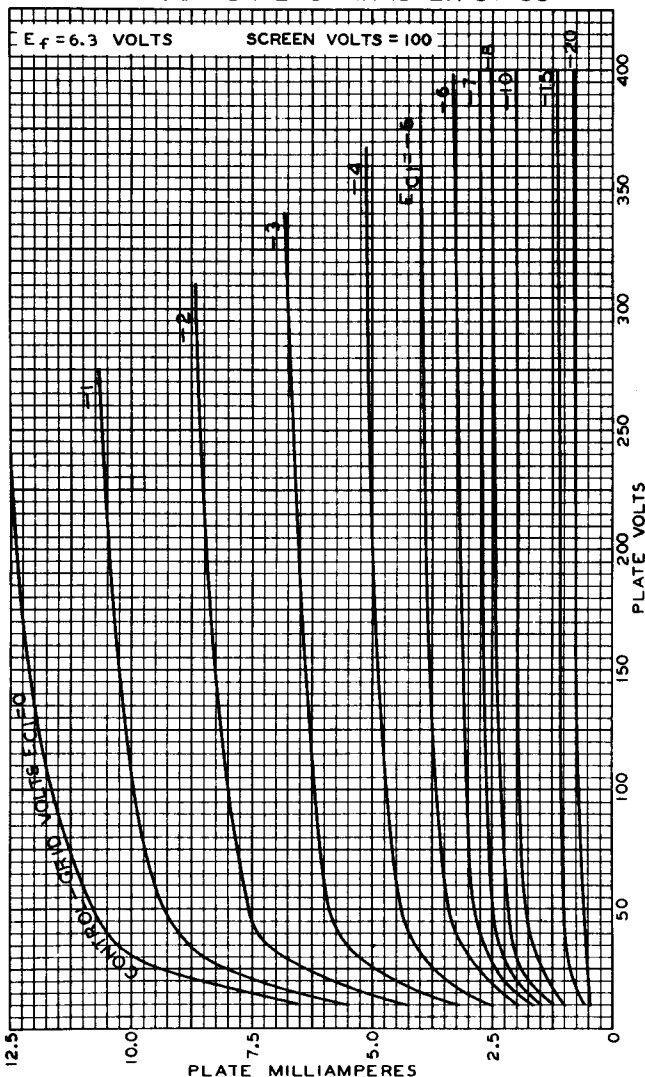
DATA

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## AVERAGE PLATE CHARACTERISTICS



SEPT. 17, 1943

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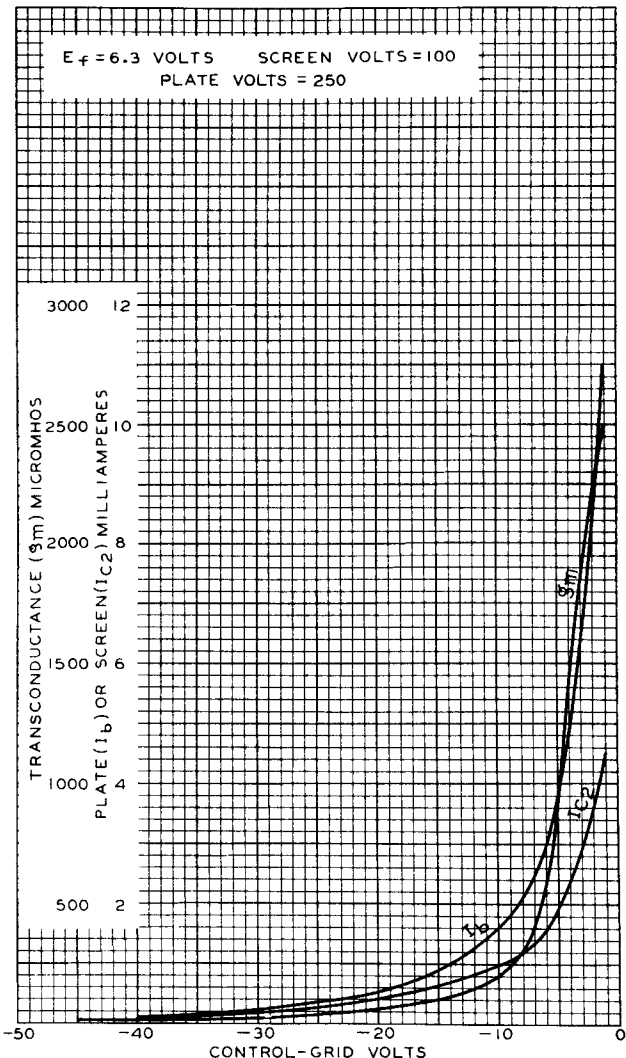


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### AVERAGE CHARACTERISTICS

$E_f = 6.3$  VOLTS      SCREEN VOLTS = 100  
PLATE VOLTS = 250



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### AVERAGE CHARACTERISTICS

$E_f = 6.3$  VOLTS    CONTROL-GRID VOLTS = -3  
PLATE VOLTS = 250

