



955

955

**DETECTOR, AMPLIFIER, OSCILLATOR****ACORN TYPE***Especially for wavelengths between 0.5 meter and 5 meters*

Heater	Coated Unipotential Cathode	
Voltage	6.3	a-c or d-c volts
Current	0.15	amp.
Direct Interelectrode Capacitances:*		
Grid to Plate	1.4	$\mu\text{f}$
Grid to Cathode	1.0	$\mu\text{f}$
Plate to Cathode	0.6	$\mu\text{f}$
Overall Length	1-7/32" $\pm$ 5/32"	
Overall Diameter	1-3/32" $\pm$ 1/16"	
Bulb	See Outline in GENERAL SECTION	Small Radial 5-Pin T-4 $\frac{1}{2}$
Base		
Pin 1-Heater		Pin 4-Heater
Pin 2-Plate		Pin 5-Cathode
Pin 3-Grid		
RCA Socket		Stock No. 9925
Mounting Position		Any



Short Part of Bulb: Bottom  
BOTTOM VIEW (5BC)

*Maximum Ratings Are Design-Center Values*A-F AMPLIFIER

D-C Plate Voltage	250 max.	volts
Plate Dissipation	1.6 max.	watts
D-C Heater-Cathode Potential	80 max.	volts

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

D-C Plate Voltage	90	135	180	250	volts
D-C Grid Voltage*	-2.5	-3.75	-5	-7	volts
Amplification Factor	25	25	25	25	
Plate Resistance	14700	13200	12500	11400	ohms
Transconductance	1700	1900	2000	2200	$\mu\text{mhos}$
D-C Plate Current	2.5	3.5	4.5	6.3	ma.
Load Resistance	-	-	20000	-	ohms
Second Harmonic Dist.	-	-	5	-	%
Power Output	-	-	135	-	mw

*Typical Operation with Resistance-Coupling:*

Plate-Supply Voltage <sup>o</sup>	180	volts
D-C Grid Voltage*	-3.5	volts
Load Resistance	250000	ohms
Plate Current	0.42	ma.
Second Harmonic Distortion	5	%
Voltage Output	45 RMS	volts
Voltage Gain	20 approx.	

R-F POWER AMPLIFIER & OSCILLATOR - Class C*Plate Modulated or C.W.*

D-C Plate Voltage	180 max.	volts
D-C Plate Current	8 max.	ma.
D-C Grid Current	2 max.	ma.
D-C Heater-Cathode Potential	80 max.	volts

*Typical Operation:*

D-C Plate Voltage	180	volts
D-C Grid Voltage	-35 approx.	volts
D-C Plate Current	7	ma.

\* , \* , o : See next page.

← Indicates a change.

JUNE 30, 1944

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

DATA





# DETECTOR, AMPLIFIER, OSCILLATOR

(continued from preceding page)

D-C Grid Current 1.5 approx.ma.  
 Power Output\*\* 0.5 approx.watt

## DETECTOR

Typical Operation:	DETECTOR	
	Biased	Grid-Leak
Plate-Supply Voltage <sup>o</sup>	180	45 volts
Grid Voltage	-7 approx.	Grid Return to Cathode volts
Load Resistance	0.25	- megohm
Plate Current	Adjusted to 0.2 ma. approx. with no input signal.	- ma.
Cathode Resistor	50000 approx.	- ohms
Grid Leak	-	1 to 5 megohms
Grid Condenser	-	0.00025 $\mu$ f

• With no external shield.

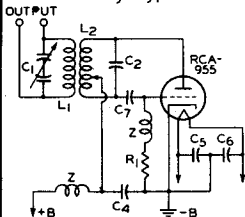
\* Under maximum rated conditions, the resistance in the grid circuit should not exceed 0.1 megohm with fixed bias, or 0.5 megohm with cathode bias.

<sup>o</sup> This is a plate-supply voltage value. The voltage effective at plate will be plate-supply voltage minus the voltage drop in load caused by plate current.

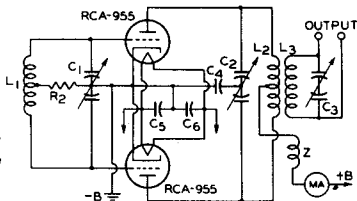
\*\* At 5 meters. Only moderate reduction in this value will be found for wavelengths as low as 1 meter. Below 1 meter, the power output decreases as the wavelength is decreased.

*R-F grounding* by means of condensers placed close to the tube pins is required if the full capabilities of the 955 for ultra-high-frequency uses are to be obtained.

U-H-F OSCILLATOR  
Hartley Type



PUSH-PULL U-H-F OSCILLATOR  
Tuned-Plate Tuned-Grid Type



$L_1, C_1, L_2, C_2, L_3, C_3$  = DEPEND ON  
FREQUENCY RANGE DESIRED

$C_4, C_5, C_6$  = 100  $\mu$ f

$C_7$  = 50  $\mu$ f

$R_1$  = 20000 TO 25000 OHMS,  $\frac{1}{2}$  WATT

$R_2$  = 10000 TO 12500 OHMS,  $\frac{1}{2}$  WATT

Z = R-F CHOKE

92CM-6568

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

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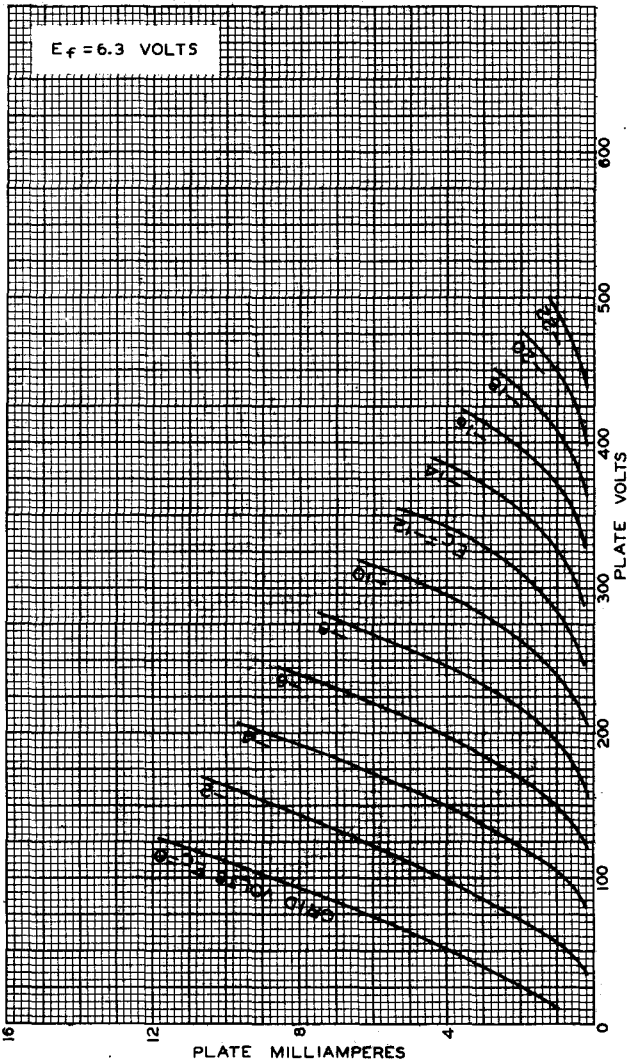




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# AVERAGE PLATE CHARACTERISTICS



MAY 7, 1941

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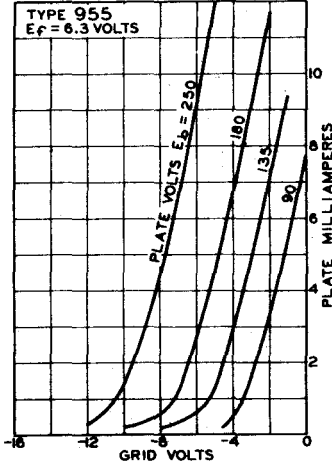
92C-5561R1



CHARACTERISTICS CURVES

AVERAGE CHARACTERISTICS

TYPE 955  
 $E_f = 6.3$  VOLTS

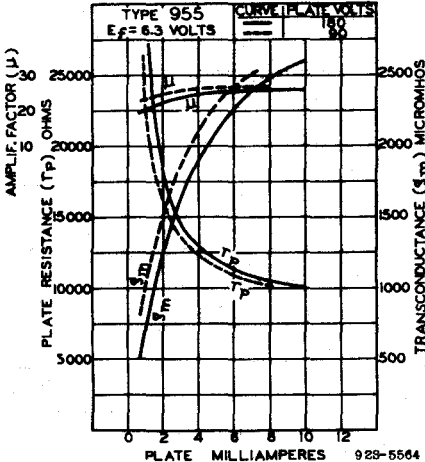


92C-5563R1

AVERAGE CHARACTERISTICS

TYPE 955  
 $E_f = 6.3$  VOLTS

CURVE PLATE VOLTS  
 --- 180  
 --- 90



92B-5564

July 1, 1941

RCA RADOTRON DIVISION  
 RCA MANUFACTURING COMPANY, INC.

92C-5563R1  
 92S-5564