

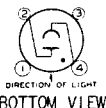


918

918

GAS PHOTOTUBE

Cathode	Semi-cylindrical	S2
Photosurface		1 sq.in.
Window Area		3.0 μ f
Direct Interelectrode Capacitance		4-1/8"
Maximum Overall Length		3-1/2"
Maximum Seated Height		1-3/16"
Maximum Diameter		T-8
Bulb (lime glass)		Tapered Small 4-Pin
Base		Pin 3-No Connection
Pin 1-No Connection		Pin 4-Cathode (-)
Pin 2-Anode (+)		Any
Mounting Position		



Maximum Ratings Are Absolute Values

MAXIMUM RATINGS and CHARACTERISTICS

Anode-Supply Voltage (D.C. or Peak A.C.)	90 max.	volts
Anode Current*	20 max.	μ amp.
Ambient Temperature	100 max.	$^{\circ}$ C
Luminous Sensitivity:*		
At 0 cycles	150	μ amp./lumen
At 5000 cycles	120	μ amp./lumen
At 10000 cycles	105	μ amp./lumen
Sensitivity at 8000 Angstroms	0.0145	μ amp./ μ watt
Gas Amplification Factor	Not over 10.5	
D-C Resistance of Load:		

With anode-supply voltage of 75 volts or less

For d-c currents	{ above 3.5 μ amp.	0.1 min. megohm
	{ below 3.5 μ amp.	No Minimum

With anode-supply voltage of 90 volts

For d-c currents	{ above 2.0 μ amp.	4.0 min. megohms
	{ below 2.0 μ amp.	1.0 min. megohm

- * On the basis of the use of a sensitive cathode area 1/2" in diameter.
 * Subject to variations as explained on sheet PHOTOTUBE SENSITIVITY MEASUREMENTS in the front of this section.

OUTLINE DIMENSIONS

for the 918 are the same as those for the 868.

Spectral Sensitivity Characteristic of S2 Photosurface
 in lime-glass bulb is shown at beginning
 of this section.

← Indicates a change.

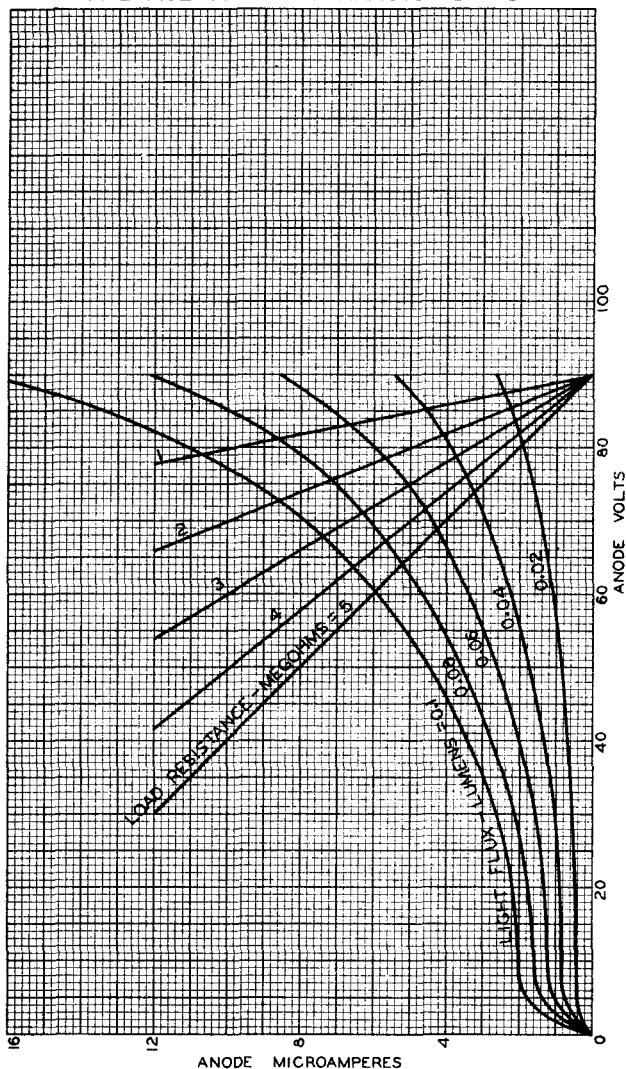
Mar. 20, 1943

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

DATA



AVERAGE ANODE CHARACTERISTICS

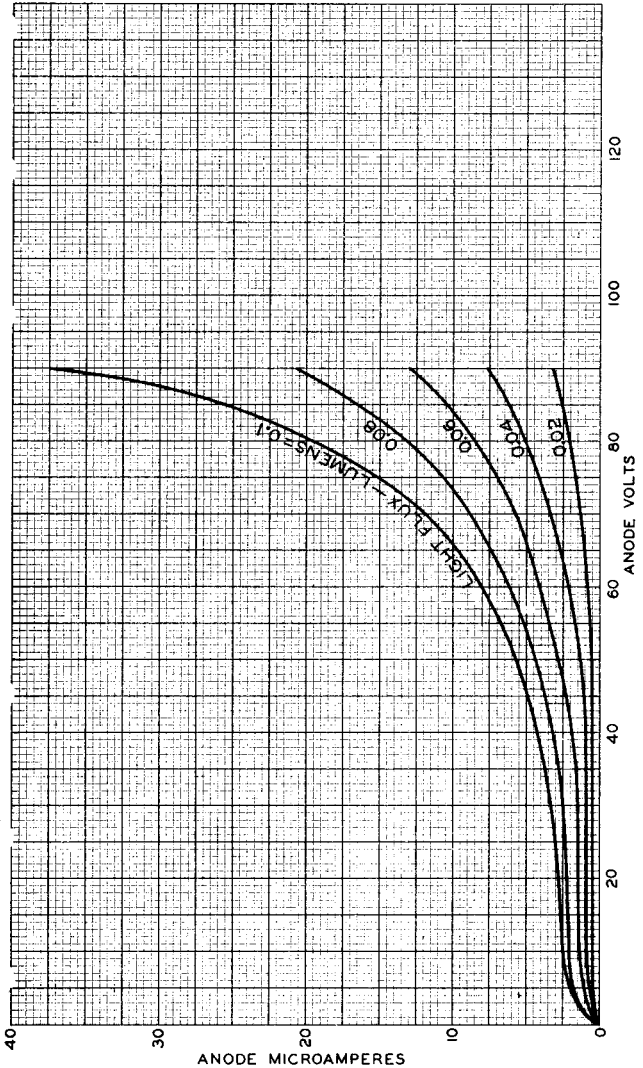




918

9/8

AVERAGE ANODE CHARACTERISTICS



APRIL 7, 1950

TUBE DEPARTMENT

RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY

92CM-4351R2

Gas Phototube

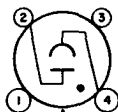
SIDE-ON TYPE HAVING S-I RESPONSE

DATA

General:

Spectral Response.	S-1
Wavelength of Maximum Response	8000 $\pm$ 1000 angstroms
Cathode:	
Shape.	Semicylindrical
Minimum projected length ^a	1-1/4"
Minimum projected width ^a	5/8"
Direct Interelectrode Capacitance (Approx.)	3 μ f
Maximum Overall Length	4-1/8"
Maximum Seated Length.	3-1/2"
Seated Length to Center of Cathode	2-1/8" $\pm$ 3/32"
Maximum Diameter	1-1/8"
Operating Position	Any
Weight (Approx.)	1.1 oz $\leftarrow$
Bulb	T8
Socket	Amphenol No. 77-MIP-4-T, or equivalent $\leftarrow$
Base	Dwarf-Shell Small 4-Pin (JEDEC No. A4-26) $\leftarrow$
Basing Designation for BOTTOM VIEW	2K

Pin 1—No Connection
Pin 2—Anode



DIRECTION OF RADIATION

Pin 3—No Connection
Pin 4—Photocathode

Maximum Ratings, Absolute-Maximum Values:

	Rating 1	Rating 11	
ANODE-SUPPLY VOLTAGE (DC or Peak AC).	70 max.	90 max.	volts
AVERAGE CATHODE-CURRENT DENSITY ^b	50 max.	25 max.	μ a/sq. in.
AVERAGE CATHODE CURRENT ^b	10 max.	5 max.	μ a
AMBIENT TEMPERATURE.	100 max.	100 max.	$^{\circ}$ C

Characteristics:

With an anode-supply voltage of 90
volts unless otherwise specified

	Min.	Median	Max.	
Sensitivity:				
Radiant, at 8000 angstroms	—	0.014	—	amp/watt
Luminous: ^c				
At 0 cps	120	150	220	μ a/lumen
At 5000 cps.	—	120	—	μ a/lumen
At 10000 cps	—	105	—	μ a/lumen
Gas Amplification Factor ^d	—	—	10.5	
Anode Dark Current at 25 $^{\circ}$ C.	—	—	0.1	μ a

$\leftarrow$ Indicates a change.



Minimum Circuit Values:

With an anode-supply voltage of			
	70 or less	90	volts
DC Load Resistance:			
For dc currents above 5 μ a.	0.1 min.	—	megohm
For dc currents below 5 μ a.	0 min.	—	megohms
For dc currents above 3 μ a.	—	2.5 min.	megohms
For dc currents below 3 μ a.	—	0.1 min.	megohm

- a On plane perpendicular to indicated direction of incident radiation.
- b Averaged over any interval of 30 seconds maximum.
- c For conditions where the light source is a tungsten-filament lamp operated at a color temperature of 2870° K. A dc anode supply voltage of 90 volts and a 1-megohm load resistor are used. For the 0-cycle measurement, a light input of 0.1 lumen is used. For the 5000- and 10,000-cycle measurements, the light input is varied sinusoidally about a mean value of 0.015 lumen from zero to a maximum of twice the mean value.
- d The ratio of luminous sensitivity at an anode supply voltage of 90 volts to luminous sensitivity at an anode supply voltage of 25 volts. In each case, sensitivity is obtained under conditions where the light source is a tungsten-filament lamp operated at a color temperature of 2870° K, the light input is 0.1 lumen, and the load resistor has a value of 1 megohm.

**SPECTRAL-SENSITIVITY CHARACTERISTIC
OF PHOTOSENSITIVE DEVICE HAVING S-1 RESPONSE**

and

**FREQUENCY-RESPONSE CHARACTERISTICS
OF GAS PHOTOTUBES**

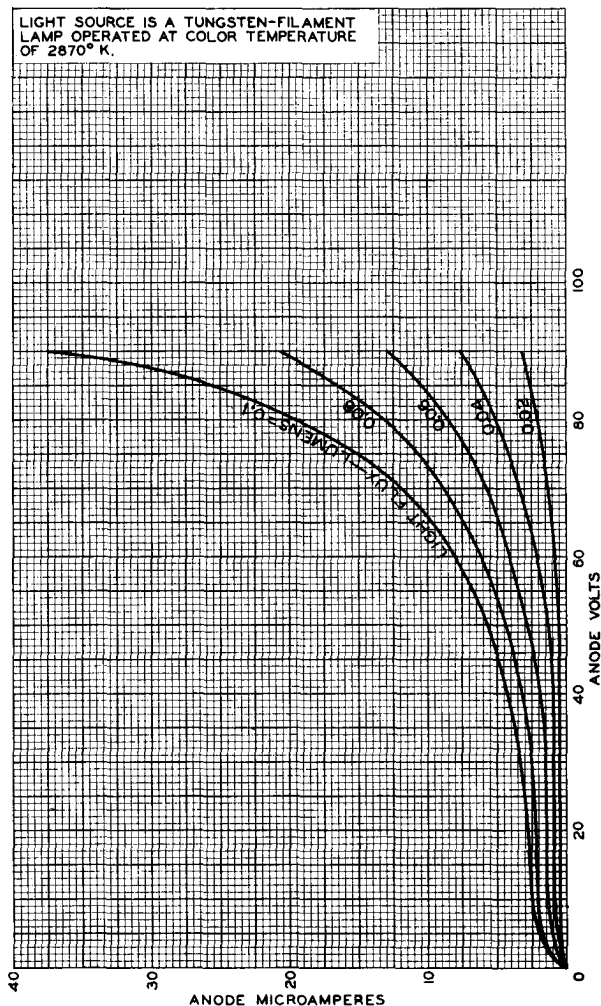
are shown at the front of this section

DIMENSIONAL OUTLINE

shown under Type IP37 also applies to the 918

AVERAGE ANODE CHARACTERISTICS

LIGHT SOURCE IS A TUNGSTEN-FILAMENT LAMP OPERATED AT COLOR TEMPERATURE OF 2870° K.



92CM-4351R3



RADIO CORPORATION OF AMERICA
Electron Tube Division
Harrison, N. J.

DATA 2
3-61