



929

929

## HIGH-VACUUM PHOTOTUBE

BLUE SENSITIVE

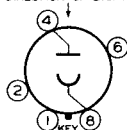
## DATA

## General:

|                                                    |                                |
|----------------------------------------------------|--------------------------------|
| Spectral Response . . . . .                        | S-4                            |
| Wavelength of Maximum Response . . . . .           | 4200 Angstroms                 |
| Cathode:                                           |                                |
| Shape . . . . .                                    | Semi-Cylindrical               |
| Minimum Projected Length* . . . . .                | 13/16"                         |
| Minimum Projected Width* . . . . .                 | 5/8"                           |
| Center Length (from bottom edge of base) . . . . . | 1-31/32" $\pm$ 3/32"           |
| Direct Interelectrode Capacitance . . . . .        | 2.6 $\mu$ mf                   |
| Mounting Position . . . . .                        | Any                            |
| Maximum Overall Length . . . . .                   | 3-1/16"                        |
| Maximum Seated Length . . . . .                    | 2-1/2"                         |
| Maximum Diameter . . . . .                         | 1-5/16"                        |
| Bulb . . . . .                                     | T-9                            |
| Base . . . . .                                     | Intermediate Shell Octal 5-Pin |

## BOTTOM VIEW

DIRECTION OF LIGHT



Pin 1—No Connection  
Pin 2—No Connection  
Pin 4—Anode

Pin 6—No Connection  
Pin 8—Cathode

## Maximum Ratings, Absolute Values:

|                                                |                            |              |
|------------------------------------------------|----------------------------|--------------|
| ANODE-SUPPLY VOLTAGE (DC or Peak AC) . . . . . | 250 max. . . . .           | volts        |
| CATHODE CURRENT DENSITY . . . . .              | 100 max. $\mu$ amp./sq.in. |              |
| AVERAGE CATHODE CURRENT <sup>o</sup> . . . . . | 20 max. . . . .            | $\mu$ amp.   |
| AMBIENT TEMPERATURE . . . . .                  | 75 max. . . . .            | $^{\circ}$ C |

## Characteristics:

|                                          |                  |                        |
|------------------------------------------|------------------|------------------------|
| Max. Dark Current at 250 volts . . . . . | 0.0125 . . . . . | $\mu$ amp.             |
| Sensitivity:                             |                  |                        |
| At 4200 Angstroms . . . . .              | 0.037 . . . . .  | $\mu$ amp./ $\mu$ watt |
| Luminous . . . . .                       | 45 . . . . .     | $\mu$ amp./lumen       |

## Minimum Circuit Value:

|                                                                   |             |        |
|-------------------------------------------------------------------|-------------|--------|
| DC Load Resistance for 250-volt<br>anode-supply voltage . . . . . | 1 . . . . . | megohm |
|-------------------------------------------------------------------|-------------|--------|

\* On plane perpendicular to indicated direction of incident light.

<sup>o</sup> On the basis of the use of a sensitive cathode area 1/2" in diameter.

Spectral Sensitivity Characteristic of Phototube having  
S-4 Response is shown at beginning of this section.

← Indicates a change.

AUG. 15, 1946

TUBE DEPARTMENT

RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY

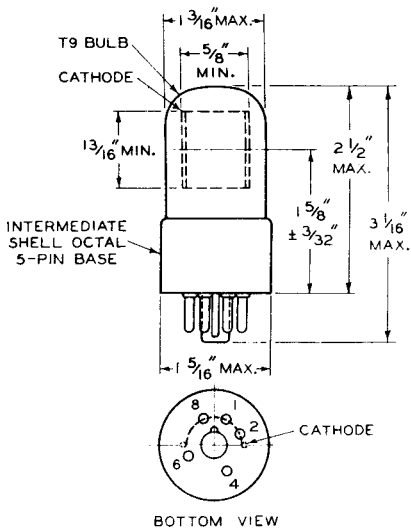
DATA

929



929

## HIGH-VACUUM PHOTOTUBE



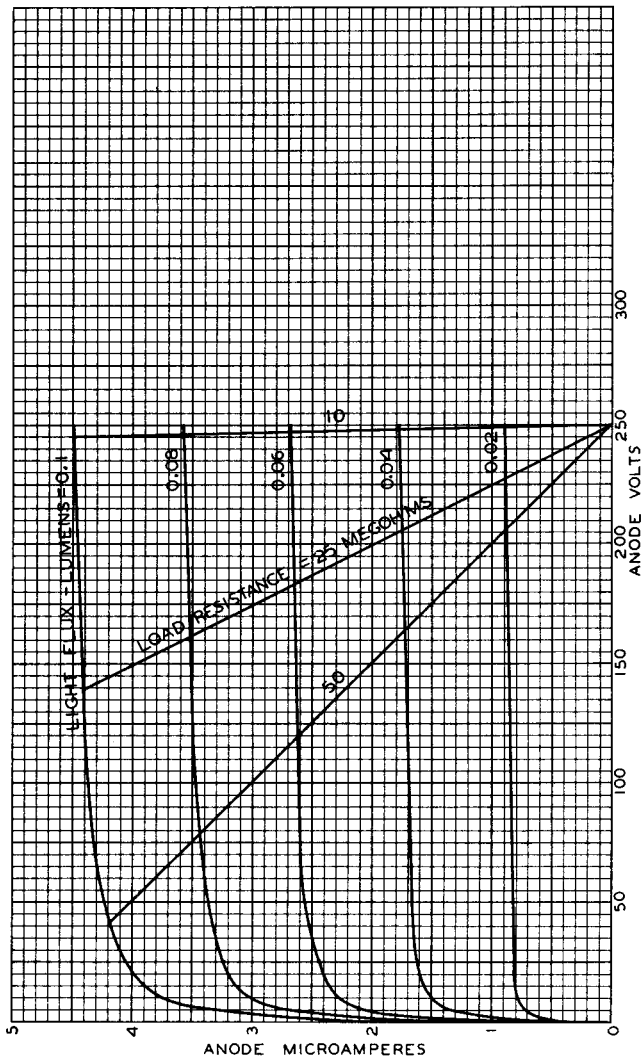
92CM-6137R2



929

929

## AVERAGE ANODE CHARACTERISTICS



APRIL 11, 1940

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

92C-6151

# Vacuum Phototube

## SIDE-ON TYPE HAVING S-4 RESPONSE

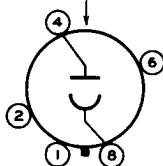
### DATA

#### General:

|                                                      |                                                                                          |
|------------------------------------------------------|------------------------------------------------------------------------------------------|
| Spectral Response. . . . .                           | S-4                                                                                      |
| Wavelength of Maximum Response . . . . .             | 4000 $\pm$ 500 angstroms                                                                 |
| Cathode:                                             |                                                                                          |
| Shape. . . . .                                       | Semicylindrical                                                                          |
| Minimum projected length <sup>a</sup> . . . . .      | 13/16"                                                                                   |
| Minimum projected width <sup>a</sup> . . . . .       | 5/8"                                                                                     |
| Direct Interelectrode Capacitance (Approx.). . . . . | 2.6 $\mu$ f                                                                              |
| Maximum Overall Length . . . . .                     | 3-1/16"                                                                                  |
| Maximum Seated Length. . . . .                       | 2-1/2"                                                                                   |
| Seated Length to Center of Cathode . . . . .         | 1-5/8" $\pm$ 3/32"                                                                       |
| Maximum Diameter . . . . .                           | 1-9/32"                                                                                  |
| Operating Position . . . . .                         | Any                                                                                      |
| Weight (Approx.) . . . . .                           | 0.9 oz $\leftarrow$                                                                      |
| Bulb . . . . .                                       | T9                                                                                       |
| Socket . . . . .                                     | Cinch No.8 JM-1, or equivalent $\leftarrow$                                              |
| Base . . . . .                                       | Intermediate-Shell Octal 5-Pin, Arrangement 1<br>(JEDEC Group 1, No. B5-10) $\leftarrow$ |
| Basing Designation for BOTTOM VIEW . . . . .         | 3J                                                                                       |

#### DIRECTION OF LIGHT

Pin 1 - No Internal  
Connection  
Pin 2 - No Internal  
Connection



Pin 4 - Anode  
Pin 6 - No Internal  
Connection  
Pin 8 - Cathode

#### Maximum Ratings, Absolute-Maximum Values:

|                                                        |          |                 |
|--------------------------------------------------------|----------|-----------------|
| ANODE-SUPPLY VOLTAGE<br>(DC or Peak AC). . . . .       | 250 max. | volts           |
| AVERAGE CATHODE-CURRENT DENSITY <sup>b</sup> . . . . . | 25 max.  | $\mu$ a/sq. in. |
| AVERAGE CATHODE CURRENT <sup>b</sup> . . . . .         | 5 max.   | $\mu$ a         |
| AMBIENT TEMPERATURE. . . . .                           | 75 max.  | $^{\circ}$ C    |

#### Characteristics:

With an anode-supply voltage of 250 volts

|                                                   | Min. | Median | Max.   |               |
|---------------------------------------------------|------|--------|--------|---------------|
| Sensitivity:                                      |      |        |        |               |
| Radiant, at 4000<br>angstroms. . . . .            | -    | 0.044  | -      | amp/watt      |
| Luminous <sup>c</sup> . . . . .                   | 25   | 45     | 70     | $\mu$ a/lumen |
| Anode Dark Current at<br>25 $^{\circ}$ C. . . . . | -    | -      | 0.0125 | $\mu$ a       |

$\leftarrow$ Indicates a change.



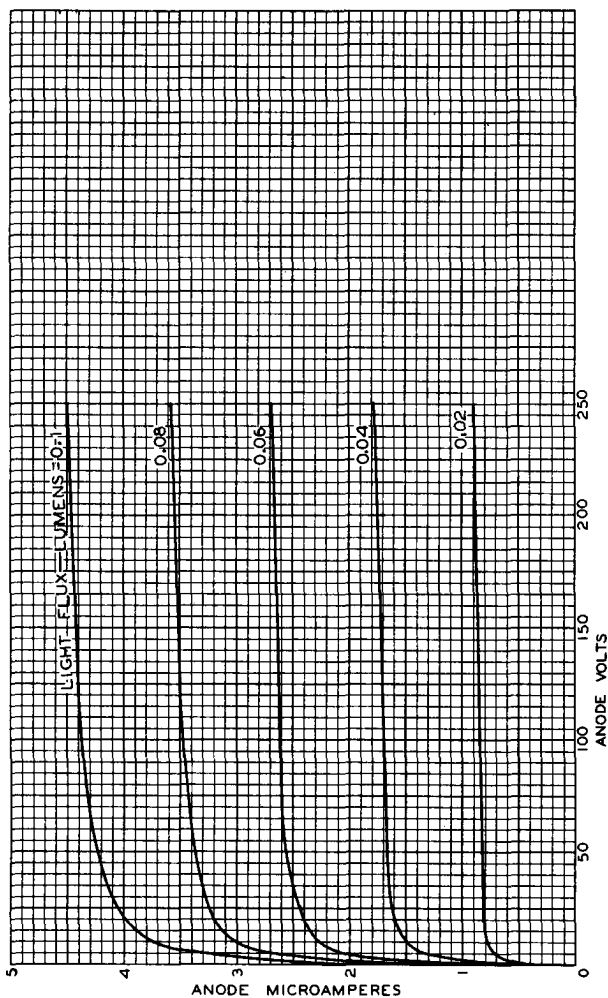
- <sup>a</sup> On plane perpendicular to indicated direction of radiation.
- <sup>b</sup> Averaged over any interval of 30 seconds maximum.
- <sup>c</sup> For conditions where the light source is a tungsten-filament lamp operated at a color temperature of 2870° K. A 1-megohm load resistor and a light input of 0.1 lumen are used.

SPECTRAL-SENSITIVITY CHARACTERISTIC  
OF PHOTOSENSITIVE DEVICE HAVING S-4 RESPONSE  
is shown at the front of this section

DIMENSIONAL OUTLINE  
shown under Type 5581 also applies to the 929



## AVERAGE ANODE CHARACTERISTICS



92CM-6151R1



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

DATA 2  
1-62