



935

935

## VACUUM PHOTOTUBE

WITH S-5 RESPONSE

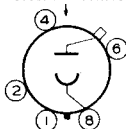
## DATA

## General:

|                                              |                                |
|----------------------------------------------|--------------------------------|
| Spectral Response . . . . .                  | S-5                            |
| Wavelength of Maximum Response. . . . .      | 3400 $\pm$ 500 Angstroms       |
| Cathode:                                     |                                |
| Shape . . . . .                              | Semi-Cylindrical               |
| Minimum Projected Length* . . . . .          | 1-5/16"                        |
| Minimum Projected Width*. . . . .            | 5/8"                           |
| Direct Interelectrode Capacitance . . . . .  | 0.6 $\mu$ f                    |
| Overall Length. . . . .                      | 4-1/8" $\pm$ 1/8"              |
| Seated Length . . . . .                      | 3-9/16" $\pm$ 1/8"             |
| Seated Length to Center of Cathode . . . . . | 2" $\pm$ 1/16"                 |
| Maximum Diameter. . . . .                    | 1-9/32"                        |
| Bulb. . . . .                                | T-9                            |
| Mounting Position . . . . .                  | Any                            |
| Cap . . . . .                                | Skirted Miniature              |
| Base. . . . .                                | Intermediate-Shell Octal 5-Pin |

BOTTOM VIEW  
DIRECTION OF  
INCIDENT RADIATION

Pin 1 - No  
  Connection  
Pin 2 - No  
  Connection  
Pin 4 - No  
  Connection



Pin 6 - No  
  Connection  
Pin 8 - Cathode  
Cap - Anode

## Maximum Ratings, Absolute Values:

|                                                |                  |                  |
|------------------------------------------------|------------------|------------------|
| ANODE-SUPPLY VOLTAGE (DC or Peak AC)           | 250 max. . . . . | volts            |
| PEAK CATHODE CURRENT. . . . .                  | 30 max. . . . .  | $\mu$ amp        |
| PEAK CATHODE-CURRENT DENSITY. . . . .          | 100 max. . . . . | $\mu$ amp/sq.in. |
| AVERAGE CATHODE CURRENT <sup>o</sup> . . . . . | 10 max. . . . .  | $\mu$ amp        |
| AMBIENT TEMPERATURE . . . . .                  | 75 max. . . . .  | $^{\circ}$ C     |

## Characteristics:

|                                     | <u>Min.</u> | <u>Au.</u> | <u>Max.</u> |                                    |
|-------------------------------------|-------------|------------|-------------|------------------------------------|
| Dark Current at 250 Volts . . . . . | -           | -          | 0.0005      | . . . $\mu$ amp                    |
| Sensitivity:                        |             |            |             |                                    |
| At 3400 Angstroms . . . . .         | -           | 0.032      | -           | $\mu$ amp/ $\mu$ watt $\leftarrow$ |
| Luminous <sup>▲</sup> . . . . .     | 18          | 35         | 70          | $\mu$ amp/lumen $\leftarrow$       |

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

o Averaged over any interval of 30 seconds maximum.

▲ Measured under conditions specified on sheet "PHOTOTUBE SENSITIVITY AND SENSITIVITY MEASUREMENTS" at the front of this Section.

SPECTRAL-SENSITIVITY CHARACTERISTIC  
of Phototube having S-5 Response  
is shown at the beginning of this Section

 $\leftarrow$  Indicates a change.

JULY 3, 1950

TUBE DEPARTMENT

RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY

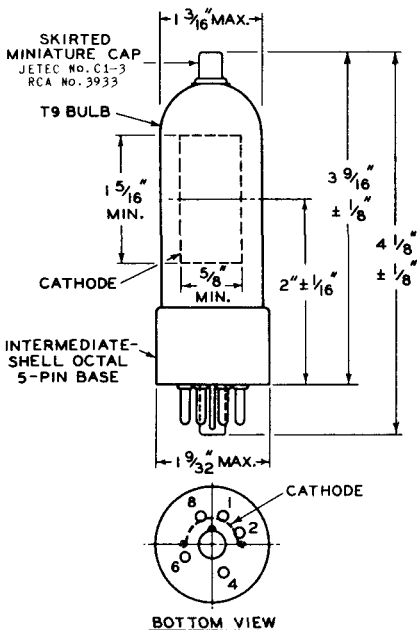
DATA

935



935

## VACUUM PHOTOTUBE



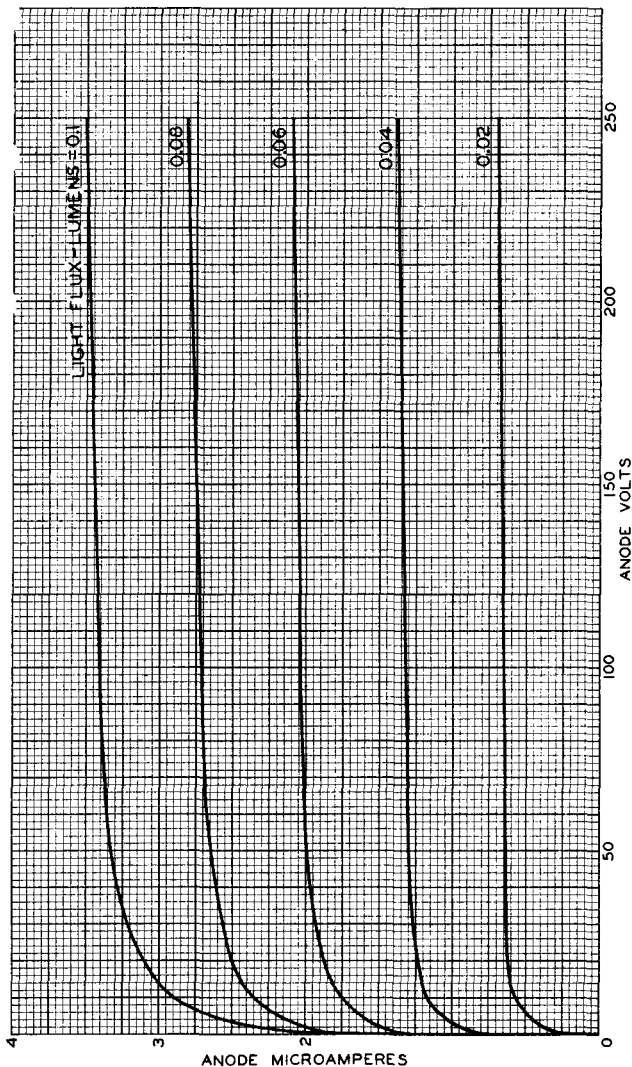
92CM-6411R4



935

935

## AVERAGE ANODE CHARACTERISTICS



APRIL 20, 1950

TUBE DEPARTMENT  
RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY

92CM-6478RI

# Vacuum Phototube

## SIDE-ON TYPE HAVING S-5 RESPONSE

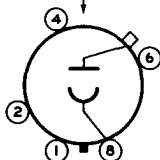
### DATA

#### General:

|                                                     |                                                                                         |
|-----------------------------------------------------|-----------------------------------------------------------------------------------------|
| Spectral Response. . . . .                          | S-5                                                                                     |
| Wavelength of Maximum Response . . . .              | 3400 $\pm$ 500 angstroms                                                                |
| Cathode:                                            |                                                                                         |
| Shape. . . . .                                      | Semicylindrical                                                                         |
| Minimum projected length <sup>a</sup> . . . . .     | .1-5/16"                                                                                |
| Minimum projected width <sup>a</sup> . . . . .      | 5/8"                                                                                    |
| Direct Interelectrode Capacitance (Approx.) . . . . | 0.6 $\mu$ f                                                                             |
| Maximum Overall Length . . . . .                    | 4-1/4"                                                                                  |
| Seated Length. . . . .                              | 3-9/16" $\pm$ 1/8"                                                                      |
| Seated Length to Center of Cathode . . . . .        | 2" $\pm$ 1/16"                                                                          |
| Maximum Diameter . . . . .                          | 1-9/32"                                                                                 |
| Operating Position . . . . .                        | .Any                                                                                    |
| Weight (Approx.) . . . . .                          | 1 oz $\leftarrow$                                                                       |
| Bulb . . . . .                                      | T9                                                                                      |
| Cap. . . . .                                        | Skirted Miniature (JEDEC No.C1-3) $\leftarrow$                                          |
| Socket . . . . .                                    | Cinch No.8JM-1, or equivalent $\leftarrow$                                              |
| Base . . . . .                                      | Intermediate-Shell Octal 5-Pin, Arrangement 1 $\leftarrow$<br>(JEDEC Group 1, No.B5-10) |
| Basing Designation for BOTTOM VIEW . . . . .        | 1C                                                                                      |

#### DIRECTION OF RADIATION

Pin 1 - No Internal  
Connection  
Pin 2 - No Internal  
Connection  
Pin 4 - No Internal  
Connection



Pin 6 - No Internal  
Connection  
Pin 8 - Photocathode  
Cap - Anode

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

|                                                      |          |                |
|------------------------------------------------------|----------|----------------|
| ANODE-SUPPLY VOLTAGE<br>(DC or Peak AC). . . . .     | 250 max. | volts          |
| AVERAGE CATHODE-CURRENT DENSITY <sup>b</sup> . . . . | 30 max.  | $\mu$ a/sq.in. |
| AVERAGE CATHODE CURRENT <sup>b</sup> . . . . .       | 10 max.  | $\mu$ a        |
| AMBIENT TEMPERATURE. . . . .                         | 75 max.  | $^{\circ}$ C   |

#### Characteristics:

With an anode-supply voltage of 250 volts

Min. Median Max.

|                                                |    |       |        |               |
|------------------------------------------------|----|-------|--------|---------------|
| Sensitivity:                                   |    |       |        |               |
| Radiant, at 3400 angstroms . . . . .           | -  | 0.043 | -      | amp/watt      |
| Luminous <sup>c</sup> . . . . .                | 18 | 35    | 70     | $\mu$ a/lumen |
| Anode Dark Current at 25 $^{\circ}$ C. . . . . | -  | -     | 0.0005 | $\mu$ a       |

$\leftarrow$  Indicates a change.

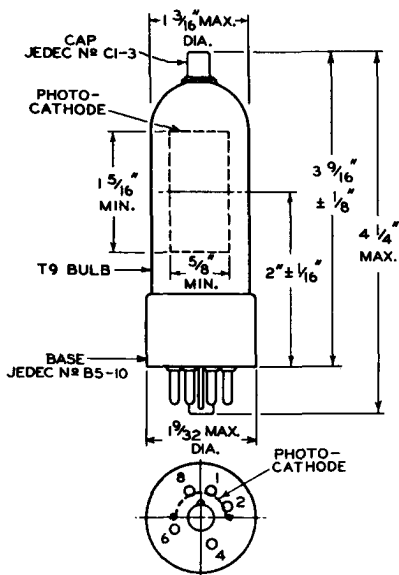


RADIO CORPORATION OF AMERICA  
Electron Tube Division  
Harrison, N. J.

DATA  
5-62

- <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-5 RESPONSE  
 is shown at the front of this section**



92CM-6411R5