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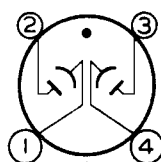
**GAS PHOTOTUBE**

BLUE SENSITIVE, TWIN TYPE

**General:**DATA

|                                              |                           |
|----------------------------------------------|---------------------------|
| Spectral Response. . . . .                   | S-4                       |
| Wavelength of Maximum Response . . . .       | 4000 $\pm$ 500 Angstroms  |
| Cathode (Each):                              |                           |
| Shape. . . . .                               | Quarter-Cylindrical       |
| Minimum Projected Length* . . . . .          | 1-3/16"                   |
| Minimum Projected Width* . . . . .           | 1/4"                      |
| Direct Interelectrode Capacitances:          |                           |
| Cathode to Anode $\blacklozenge$ . . . . .   | 1.6 . . $\mu\mu\text{f}$  |
| Cathode to Cathode $\blacksquare$ . . . . .  | 1.8 . . $\mu\mu\text{f}$  |
| Anode to Anode $\bullet$ . . . . .           | 0.44 . . $\mu\mu\text{f}$ |
| Maximum Overall Length . . . . .             | 4"                        |
| Maximum Seated Length . . . . .              | 3-3/8"                    |
| Seated Length to Center of Cathode . . . .   | 2-1/8" $\pm$ 3/32"        |
| Maximum Diameter . . . . .                   | 1-3/16"                   |
| Bulb . . . . .                               | T-9                       |
| Mounting Position . . . . .                  | Any                       |
| Base . . . . .                               | Small-Shell Small 4-Pin   |
| Basing Designation for BOTTOM VIEW . . . . . | 4BG                       |

Pin 1 = Cathode,  
Unit No.2  
Pin 2 = Anode,  
Unit No.2



DIRECTION OF LIGHT

Pin 3 = Anode,  
Unit No.1  
Pin 4 = Cathode,  
Unit No.1

**Maximum Ratings, Absolute Values (Each Unit):**

|                                                |          |                          |
|------------------------------------------------|----------|--------------------------|
| ANODE-SUPPLY VOLTAGE (DC or Peak AC)           | 100 max. | . . .volts               |
| PEAK CATHODE CURRENT . . . . .                 | 10 max.  | . . . $\mu\text{amp}$    |
| PEAK CATHODE-CURRENT DENSITY . . . .           | 50 max.  | $\mu\text{amp/sq.in.}$   |
| AVERAGE CATHODE CURRENT <sup>o</sup> . . . . . | 2 max.   | . . . $\mu\text{amp}$    |
| AMBIENT TEMPERATURE . . . . .                  | 75 max.  | . . . $^{\circ}\text{C}$ |

**Characteristics (Each Unit):**

|                              | <u>Min.</u> | <u>Av.</u> | <u>Max.</u> |                                |
|------------------------------|-------------|------------|-------------|--------------------------------|
| Dark Current at 90 Volts . . | —           | —          | 0.050       | . . . $\mu\text{amp}$          |
| Sensitivity:                 |             |            |             |                                |
| At 4000 Angstroms. . . . .   | —           | 0.11       | —           | $\mu\text{amp}/\mu\text{watt}$ |
| Luminous:                    |             |            |             |                                |
| At 0 Cycles. . . . .         | 80          | 120        | 175         | $\mu\text{amp}/\text{lumen}$   |
| At 5000 Cycles . . . . .     | —           | 110        | —           | $\mu\text{amp}/\text{lumen}$   |
| At 10000 Cycles. . . . .     | —           | 96         | —           | $\mu\text{amp}/\text{lumen}$   |
| Gas Amplification Factor . . | —           | —          | 5.5         |                                |

**Minimum Circuit Values (Each Unit):****DC Load Resistance:**

With anode-supply voltage of 80 volts or less

For dc currents  $\left\{ \begin{array}{l} \text{above } 3 \mu\text{amp} \dots 0.1 \dots \text{megohm} \\ \text{below } 3 \mu\text{amp} \dots \text{No Minimum} \end{array} \right.$

\*,  $\blacklozenge$ ,  $\blacksquare$ ,  $\bullet$ , <sup>o</sup>: See next page.

APRIL 15, 1947

TUBE DEPARTMENT

TENTATIVE DATA

RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY

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## GAS PHOTOTUBE

With anode-supply voltage of 100 volts:

For dc currents { above 1  $\mu$ amp . . . 2.5 . . . . . megohms  
 below 1  $\mu$ amp . . . 0.1 . . . . . megohm

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

◆ Each unit, with other unit grounded.

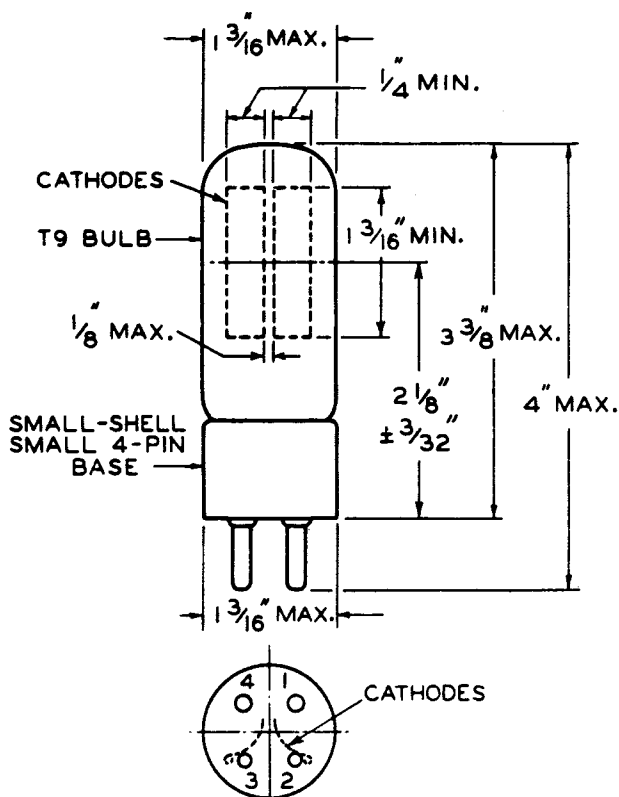
■ Anodes grounded.

● Cathodes grounded.

○ Averaged over any interval of 30 seconds maximum. Average current may be doubled when anode-supply voltage is limited to 80 volts.

SPECTRAL-SENSITIVITY CHARACTERISTIC  
 and  
 FREQUENCY-RESPONSE CHARACTERISTIC  
 of Gas Phototube having S-4 Response  
 are shown at beginning of this Section

AVERAGE ANODE CHARACTERISTICS  
 of Type 5584 are the same  
 as those shown under Type 5582



BOTTOM VIEW

92CM-4561R3

APRIL 15, 1947

TUBE DEPARTMENT  
 RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY

CE-4561R3