

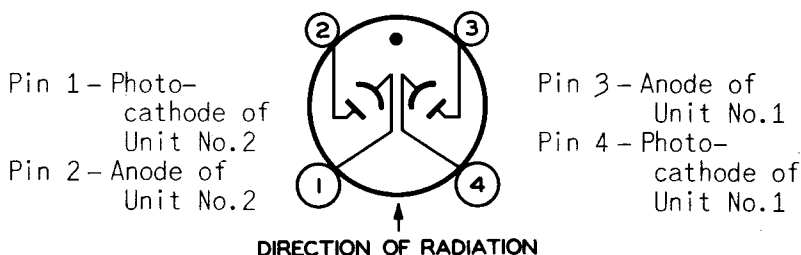
Gas Phototube

SIDE-ON, TWIN-UNIT TYPE HAVING S-I RESPONSE

DATA

General:

Spectral Response	S-1
Wavelength of Maximum Response.	8000 $\pm$ 1000 angstroms
Cathode (Each):	
Shape	Quarter-Cylindrical
Minimum projected length ^a	1-3/16"
Minimum projected width ^a	1/4"
Direct Interelectrode Capacitances (Approx.):	
Cathode to cathode ^b	1.8 μ f
Cathode to anode ^c	1.6 μ f
Anode to anode ^d	0.4 μ f ←
Maximum Overall Length.	4"
Maximum Seated Length	3-3/8"
Seated Length to Center of Cathodes	2-1/8" $\pm$ 3/32"
Maximum Diameter.	1-3/16"
Operating Position.	Any
Weight (Approx.).	1.1 oz ←
Bulb.	T9
Socket.	Amphenol No.77-M1P-4-T, or equivalent ←
Base.	Small-Shell Small 4-Pin (JEDEC No.A4-5)
Basing Designation for BOTTOM VIEW.	4BG



Maximum Ratings, Absolute-Maximum Values:

Values are for Each Unit

	Rating I	Rating II	
ANODE-SUPPLY VOLTAGE (DC or Peak AC)	70 max.	90 max.	volts
AVERAGE CATHODE-CURRENT DENSITY ^e	30 max.	15 max.	μ a/sq.in.
AVERAGE CATHODE CURRENT ^e	4 max.	2 max.	μ a
AMBIENT TEMPERATURE	100 max.	100 max.	$^{\circ}$ C

← Indicates a change.



→ Characteristics:

Values are for each unit with an anode-supply voltage of 90 volts unless otherwise specified

Min. Median Max.

Sensitivity:

Radiant, at 8000 angstroms. — 0.0094 amp/watt

Luminous:^f

At 0 cps. 50 100 175 μ a/lumen

At 5000 cps — 85 — μ a/lumen

At 10000 cps. — 74 — μ a/lumen

Ratio of Luminous Sensitivities

(Unit No.1 to Unit No.2). 0.5 1.15 2.0

Gas Amplification Factor^g — — 9

Anode Dark Current at 25° C — — 0.1 μ a

Minimum Circuit Values:

Values are for Each Unit

With an anode-supply

voltage of 70 or less 90 volts

DC Load Resistance:

For dc currents above 2 μ a. 0.1 min. — megohm

For dc currents below 2 μ a. 0 min. — megohm

For dc currents above 1 μ a. — 2.5 min. megohms

For dc currents below 1 μ a. — 0.1 min. megohm

^a On plane perpendicular to indicated direction of incident radiation.

^b With anodes grounded.

^c Each unit, with other unit grounded.

^d With cathodes grounded.

^e Averaged over any interval of 30 seconds maximum.

^f For conditions where the light source is a tungsten-filament lamp operated at a color temperature of 2870° K. A dc anode supply of 90 volts and a 1-megohm load resistor are used. For the 0-cycle measurement, a light input of 0.04 lumen is used. For the 5000- and 10000-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.

^g 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 0.04 lumen, and the load resistor has a value of 1 megohm.

**SPECTRAL-SENSITIVITY CHARACTERISTIC
OF PHOTOSENSITIVE DEVICE HAVING S-I RESPONSE
and**

**FREQUENCY-RESPONSE CHARACTERISTICS
OF GAS PHOTOTUBES**

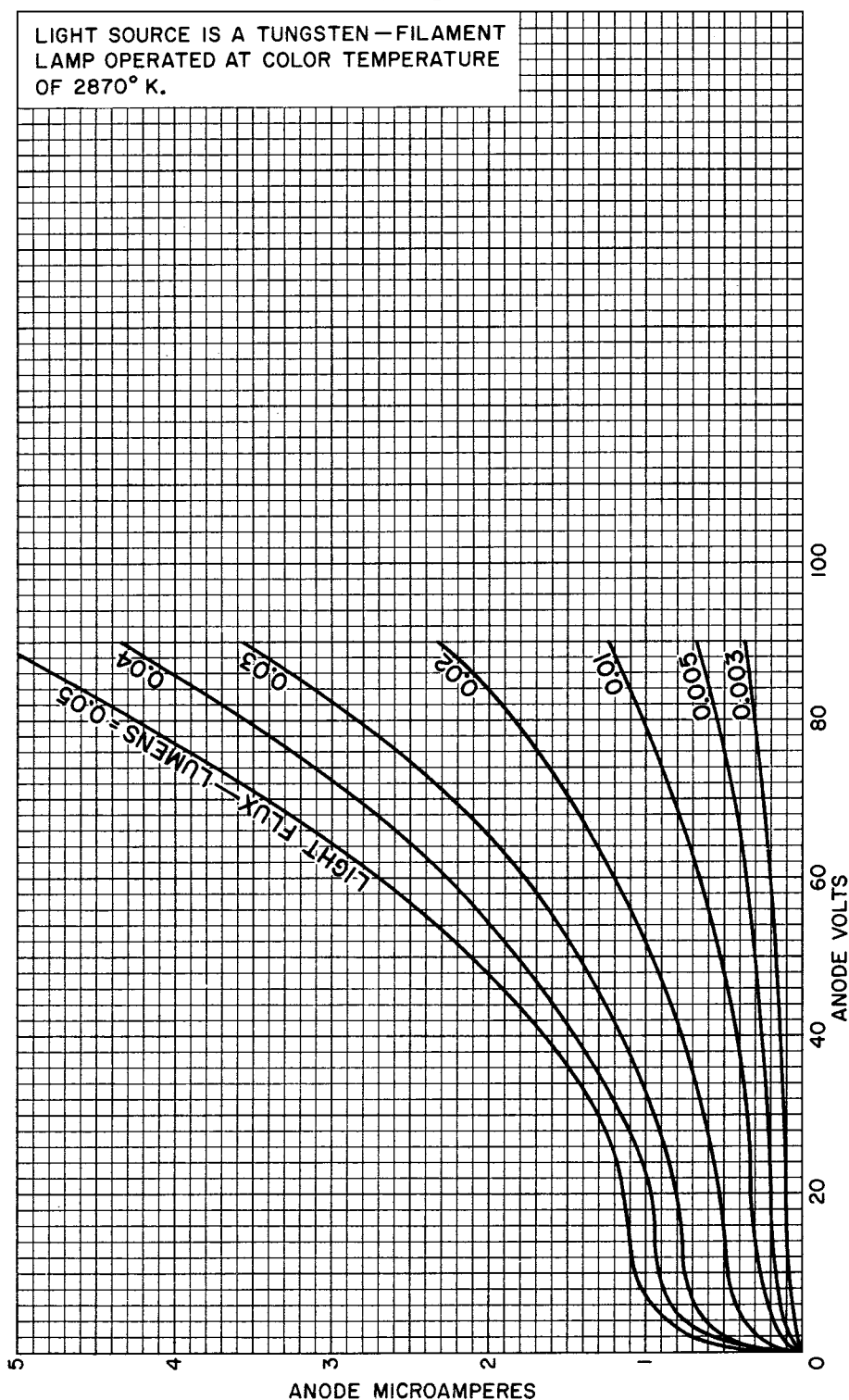
are shown at the front of this section

DIMENSIONAL OUTLINE
shown under Type 5584 also applies to the 920

→ Indicates a change.

AVERAGE ANODE CHARACTERISTICS Each Unit

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



92CM-4618R4



RADIO CORPORATION OF AMERICA
Electron Tube Division

Harrison, N. J.

DATA 2
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