

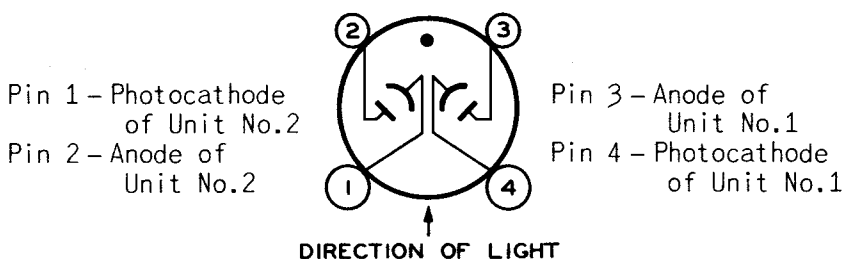
Gas Phototube

SIDE-ON, TWIN-UNIT TYPE HAVING S-4 RESPONSE

DATA

General:

Spectral Response.	S-4
Wavelength of Maximum Response	4000 $\pm$ 500 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 Cathode	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-MIP-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).	80 max.	100 max.	volts
AVERAGE CATHODE-CURRENT DENSITY ^e	20 max.	10 max.	μ a/sq.in.
AVERAGE CATHODE CURRENT ^e	4 max.	2 max.	μ a
AMBIENT TEMPERATURE.	75 max.	75 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 4000 angstroms. . .	—	0.12	—	amp/watt
Luminous: ^f				
At 0 cps.	80	120	175	μ a/lumen
At 5000 cps.	—	110	—	μ a/lumen
At 10000 cps.	—	96	—	μ a/lumen
Ratio of Luminous Sensitivities (Unit No.1 to Unit No.2). . .	0.5	1.15	2.0	
Gas Amplification Factor ^g . . .	—	—	5.5	
Anode Dark Current at 25° C . .	—	—	0.050	μ a

Minimum Circuit Values:

Values are for Each Unit

*With an anode-supply
voltage of*

80 or less 100 volts

DC Load Resistance:

For dc currents above 3 μ a. .	0.1 min.	—	megohm
For dc currents below 3 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 light.

^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-4 RESPONSE

and

FREQUENCY-RESPONSE CHARACTERISTICS OF GAS PHOTOTUBES

are shown at the front of this section

AVERAGE-ANODE-CHARACTERISTICS CURVE

shown under Type 5582 also applies to each unit of the 5584

→ Indicates a change.

