

Gas Phototube

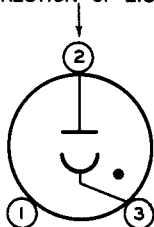
SIDE-ON TYPE HAVING S-4 RESPONSE

DATA

General:

Spectral Response.	S-4
Wavelength of Maximum Response	4000 $\pm$ 500 angstroms
Cathode:	
Shape.	Semicylindrical
Minimum projected length ^a	11/16"
Minimum projected width ^a	7/16"
Direct Interelectrode Capacitance (Approx.).	2 μ f
Maximum Overall Length	2-13/32"
Maximum Seated Length.	1-15/16"
Seated Length to Center of Cathode	1-1/4" $\pm$ 3/32"
Maximum Diameter	0.669"
Operating Position	Any
Weight (Approx.)	0.3 oz $\leftarrow$
Bulb	T5-1/4
Socket	Amphenol No.78S3S-T, or equivalent $\leftarrow$
Base	Small-Shell Peewee 3-Pin (JEDEC No.A3-1) $\leftarrow$
Basing Designation for BOTTOM VIEW	2F

DIRECTION OF LIGHT



Pin 1 - No Connection

Pin 3 - Photocathode

Pin 2 - Anode

Maximum Ratings, Absolute-Maximum Values: $\leftarrow$

	Rating I	Rating II	
ANODE-SUPPLY VOLTAGE (DC or Peak AC).	80 max.	100 max.	volts
AVERAGE CATHODE-CURRENT DENSITY ^b	40 max.	20 max.	μ a/sq. in.
AVERAGE CATHODE CURRENT ^b	4 max.	2 max.	μ a
AMBIENT TEMPERATURE.	75 max.	75 max.	$^{\circ}$ C

Characteristics: $\leftarrow$

With an anode-supply voltage of 90
volts unless otherwise specified

Min. Median Max.

Sensitivity:

Radiant, at 4000 angstroms	-	0.13	-	amp/watt
Luminous: ^c				
At 0 cps	75	135	205	μ a/lumen
At 5000 cps.	-	124	-	μ a/lumen
At 10000 cps	-	108	-	μ a/lumen

 $\leftarrow$ Indicates a change.

	<i>Min.</i>	<i>Median</i>	<i>Max.</i>	
Gas Amplification Factor ^d . . .	—	—	5.5	
Anode Dark Current at 25° C. .	—	—	0.05	μ a

Minimum Circuit Values:

<i>With an anode-supply voltage of</i>	<i>80 or less</i>	<i>100</i>	<i>volts</i>
DC Load Resistance:			
For dc currents above 3 μ a.	0.1 min.	—	megohm
For dc currents below 3 μ a.	0 min.	—	megohms
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 Averaged over any interval of 30 seconds maximum.
- ^c For conditions where the light source is a tungsten-filament lamp operated at a color temperature of 2870° K. A dc anode supply voltage of 90 volts and a 1-megohm load resistor are used. For the 0-cycle measurement, a light input of 0.1 lumen is used. For the 5000- and 10,000-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.
- ^d 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 0.1 lumen, and the load resistor has a value of 1 megohm.

SPECTRAL-SENSITIVITY CHARACTERISTIC OF PHOTSENSITIVE DEVICE HAVING S-4 RESPONSE

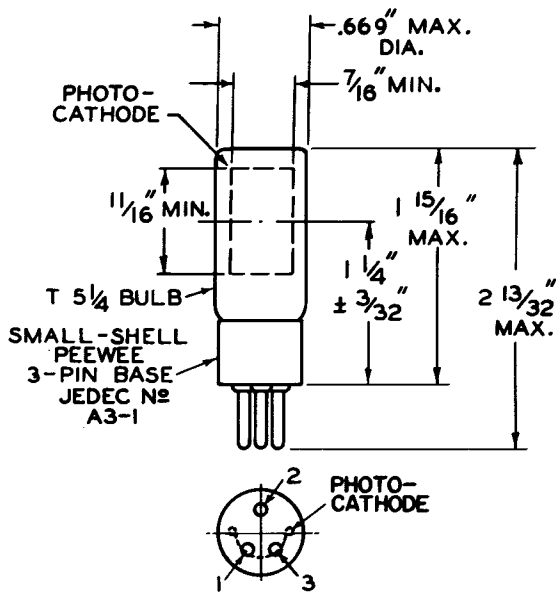
and

FREQUENCY-RESPONSE CHARACTERISTICS OF GAS PHOTOTUBES

are shown at the front of this section

AVERAGE-ANODE-CHARACTERISTICS CURVE
shown under Type 5581 also applies to the 5583





92CM-6053R5

