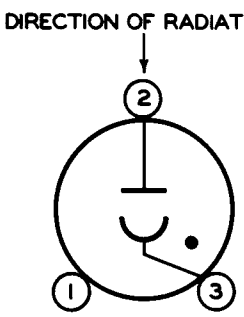
Gas Phototube

SIDE-ON TYPE HAVING S-I RESPONSE

DATA

General:

Spectral Response S-1
Wavelength of Maximum Response. . . . . 8000 ± 1000 angstroms
Cathode:
  Shape . . . . . Semicylindrical
  Minimum projected length[a] . . . . . 11/16"
  Minimum projected width[a]. . . . . 7/16"
Direct Interelectrode Capacitance (Approx.) . . . . . 2 μμf
Maximum Overall Length. . . . . 2-13/32"
Maximum Seated Length . . . . . 1-15/16"
Seated Length to Center of Cathode. . . . . 1-1/4" ± 3/32"
Maximum Diameter. . . . . 0.669"
Operating Position. . . . . Any
Weight (Approx.). . . . . 0.3 oz ←
Bulb. T5-1/4
Socket. . . . . Amphenol No.78S3S-T, or equivalent ←
Base. . . . . Small-Shell Peewee 3-Pin (JEDEC No.A3-1)
  Basing Designation for BOTTOM VIEW. 2F



Pin 1 – No Internal Connection

Pin 2 – Anode

Pin 3 – Photocathode

Maximum Ratings, *Absolute-Maximum Values:* ←

	Rating I	*Rating II*	
ANODE-SUPPLY VOLTAGE (DC or Peak AC)	70 max.	90 max.	volts
AVERAGE CATHODE-CURRENT DENSITY[b].	60 max.	30 max.	μa/sq.in.
AVERAGE CATHODE CURRENT[b]. . .	4 max.	2 max.	μa
AMBIENT TEMPERATURE	100 max.	100 max.	°C

Characteristics: ←

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

	Min.	*Median*	*Max.*	
Sensitivity: Radiant, at 8000 angstroms	–	0.012	–	amp/watt

←Indicates a change.

	Min.	*Median*	*Max.*	
Luminous:[c]				
At 0 cps.	75	125	185	μa/lumen
At 5000 cps	–	110	–	μa/lumen
At 10000 cps.	–	100	–	μa/lumen
Gas Amplification Factor[d] . .	–	–	10	
Anode Dark Current at 25° C .	–	–	0.1	μa

Minimum Circuit Values:

With an anode-supply voltage of	*70 or less*	*90*	*volts*
DC Load Resistance:			
For dc currents above 2 μa.	0.1 min.	–	megohm
For dc currents below 2 μa.	0 min.	–	megohm
For dc currents above 1 μa.	–	2.5 min.	megohms
For dc currents below 1 μa.	–	0.1 min.	megohm

[a] On plane perpendicular to indicated direction of radiation.

[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 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 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.

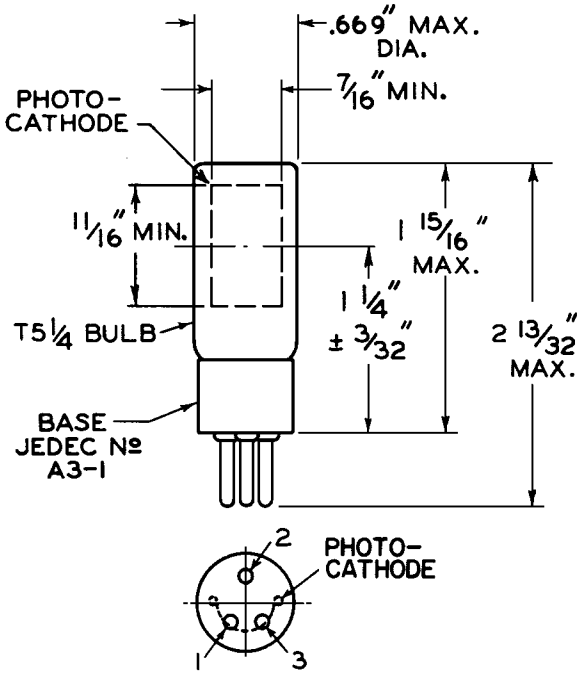
[d] The ratio of luminous sensitivity at an anode-supply voltage of 90 volts to luminous sensitivity at an anode-supply voltage of 25 volts. In each case, sensitivity is obtained under conditions where the light source is a tungsten-filament lamp operated at a color temperature of 2870° K, the light input is 0.1 lumen, and the load resistor has a value of 1 megohm.

SPECTRAL-SENSITIVITY CHARACTERISTIC OF PHOTOSENSITIVE DEVICE HAVING S-1 RESPONSE

and

FREQUENCY-RESPONSE CHARACTERISTICS OF GAS PHOTOTUBES

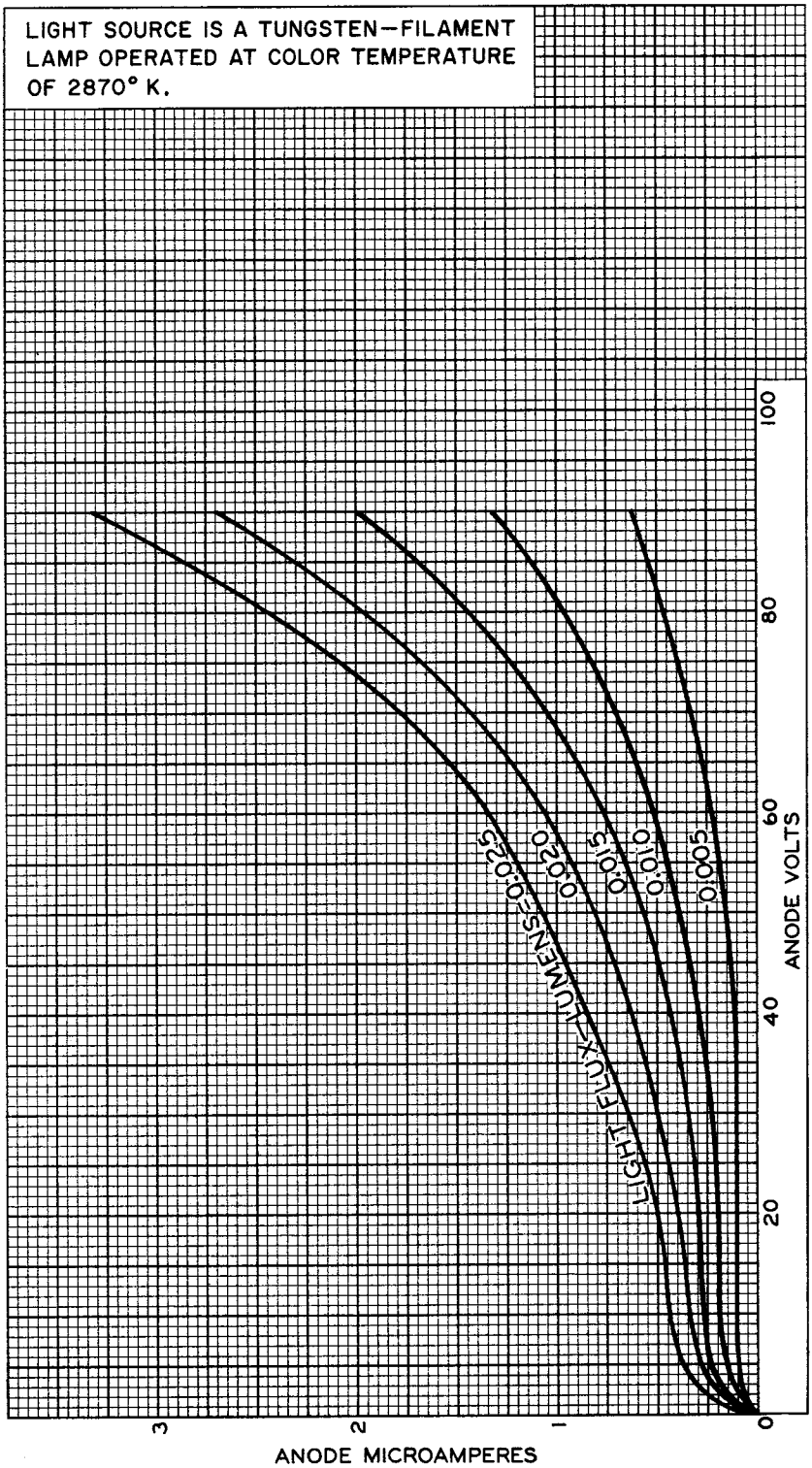
are shown at the front of this section


.669" MAX.
DIA.
7/16" MIN.
PHOTO-
CATHODE
11/16" MIN.
1 15/16"
MAX.
1 1/4"
± 3/32"
2 13/32"
MAX.
T5 1/4 BULB
BASE
JEDEC No
A3-1

2
PHOTO-
CATHODE
1
3

92CM-6053R5

AVERAGE ANODE CHARACTERISTICS



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