



5583

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# GAS PHOTOTUBE

WITH S-4 RESPONSE

## DATA

### General:

Spectral Response . . . . .	S-4
Wavelength of Maximum Response . . . . .	4000 ± 500 angstroms
Cathode:	
Shape . . . . .	Semi-Cylindrical
Minimum Projected Length* . . . . .	11/16"
Minimum Projected Width* . . . . .	7/16"
Direct Interelectrode Capacitance . . . . .	2.0 μf
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" ←
Bulb . . . . .	T-5-1/4" ←
Mounting Position . . . . .	Any
Base . . . . .	Small-Shell Peewee 3-Pin
Basing Designation for BOTTOM VIEW . . . . .	2F

DIRECTION OF LIGHT

Pin 1 - No Connection



Pin 2 - Anode  
Pin 3 - Cathode

### Maximum Ratings, Absolute Values:

ANODE-SUPPLY VOLTAGE (DC or Peak AC)	100 max.	.. volts
PEAK CATHODE CURRENT	10 max.	.. μamp
PEAK CATHODE-CURRENT DENSITY	100 max.	μamp/sq. in.
AVERAGE CATHODE CURRENT <sup>o</sup>	2 max.	.. μamp
AMBIENT TEMPERATURE	75 max.	.. °C

### Characteristics:

	Min.	Av.	Max.	
Dark Current at 90 Volts . . . . .	-	-	0.050	.. μamp
Sensitivity:				
At 4000 angstroms . . . . .	-	0.125	-	μamp/μwatt
Luminous:▲				
At 0 cps . . . . .	75	135	205	μamp/lumen
At 5000 cps . . . . .	-	124	-	μamp/lumen
At 10000 cps . . . . .	-	108	-	μamp/lumen
Gas Amplification Factor . . . . .	-	-	5.5	

### Minimum Circuit Values:

DC Load Resistance:	
With anode-supply voltage of 80 volts or less	
For dc currents {	above 3 μamp . . . . . 0.1 . . . . . megohm
	below 3 μamp . . . . . No Minimum
With anode-supply voltage of 100 volts	
For dc currents {	above 1 μamp . . . . . 2.5 . . . . . megohms
	below 1 μamp . . . . . 0.1 . . . . . megohm

\* , ° , ▲: see next page.

← Indicates a change.

5583



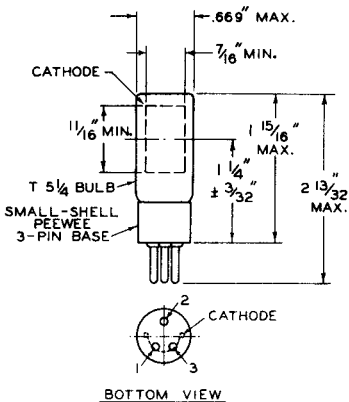
5583

## GAS PHOTOTUBE

- \* On plane perpendicular to indicated direction of incident light.
- Averaged over any interval of 30 seconds maximum. Average current may be doubled when anode-supply voltage is limited to 80 volts.
- ▲ Measured under conditions specified on sheet "PHOTOTUBE SENSITIVITY AND SENSITIVITY MEASUREMENTS" at front of this Section.

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

AVERAGE ANODE CHARACTERISTICS  
of Type 5583 are the same  
as those shown under Type 5581



92CM-6053R4

→ Indicates a change.

MAY 1, 1951

TUBE DEPARTMENT  
RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY

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