



868

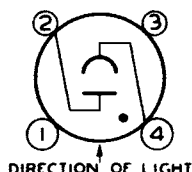
868 GAS PHOTOTUBE

WITH S-1 RESPONSE

DATA**General:**

Spectral Response	S-1
Wavelength of Maximum Response.	8000 $\pm$ 1000 Angstroms
Cathode:	
Shape	Semi-Cylindrical
Minimum Projected Length*	1-1/4"
Minimum Projected Width*	5/8"
Direct Interelectrode Capacitance	3 μ mf
Maximum Overall Length.	4-1/8"
Maximum Seated Length	3-1/2"
Seated Length to Center of Cathode.	2-1/8" $\pm$ 3/32"
Maximum Diameter.	1-1/8"
Bulb.	T-8
Mounting Position	Any
Base.	Dwarf-Shell Small 4-Pin
Basing Designation for BOTTOM VIEW.	2K

Pin 1 - No
 Connection
Pin 2 - Anode



Pin 3 - No
 Connection
Pin 4 - Cathode

Maximum Ratings, Absolute Values:

ANODE-SUPPLY VOLTAGE (DC or Peak AC).	100 max.	volts
PEAK CATHODE CURRENT.	20 max.	μ amp
PEAK CATHODE-CURRENT DENSITY.	100 max.	μ amp/sq. in.
AVERAGE CATHODE CURRENT ^o	5 max.	μ amp
AMBIENT TEMPERATURE	100 max.	$^{\circ}$ C

Characteristics:

	<u>Min.</u>	<u>Av.</u>	<u>Max.</u>	
Dark Current at 90 Volts.	-	-	0.1	μ amp
Sensitivity:				
At 8000 Angstroms	-	0.009	-	μ amp/ μ watt
Luminous:				
At 0 Cycles	50	90	145	μ amp/lumen
At 5000 Cycles	-	77	-	μ amp/lumen
At 10000 Cycles	-	67	-	μ amp/lumen
Gas Amplification Factor.	-	-	8	

* On plane perpendicular to indicated direction of incident light.

^o Averaged over any interval of 30 seconds maximum. Average current may be doubled when anode-supply voltage is limited to 80 volts.

← Indicates a change.

AUGUST 15, 1947

TUBE DEPARTMENT
RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY

DATA



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Minimum Circuit Values:

DC Load Resistance:

With anode-supply voltage of 80 volts or less:

→	For dc currents {	above 5 μ amp . .	0.1	megohm
		below 5 μ amp . .	No Minimum	

With anode-supply voltage of 100 volts:

→	For dc currents {	above 3 μ amp . .	2.5	megohms
		below 3 μ amp . .	0.1	megohm

OUTLINE DIMENSIONS for Type 868
are the same as those for Type 1P37

SPECTRAL-SENSITIVITY CHARACTERISTIC
of Phototube having S-1 Response
and

FREQUENCY-RESPONSE CHARACTERISTICS
of Gas Phototubes
are shown at the beginning of this Section

AVERAGE ANODE CHARACTERISTICS
of Type 868 are the same
as those shown under Type 1P41

→ Indicates a change.