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GAS PHOTOTUBE

CARTRIDGE TYPE WITH S-4 RESPONSE

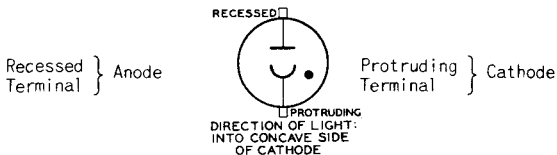
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DATA

General:

Spectral Response	S-4
Wavelength of Maximum Response	4000 $\pm$ 500 Angstroms
Cathode:	
Shape	Semi-Cylindrical
Minimum Projected Length*	5/8"
Minimum Projected Width*	1/2"
Direct Interelectrode Capacitance	1.0 μ f
Overall Length	1-21/32" $\pm$ 1/16"
Length, Cathode Center to plane A-A' (See outline)	11/16" $\pm$ 1/16"
Maximum Diameter	0.890"
Mounting Position	Any
Terminal Caps.	See Outline

BOTTOM VIEW



Maximum Ratings, Absolute Values:

ANODE-SUPPLY VOLTAGE (DC or Peak AC)	100 max.	. . . volts
PEAK CATHODE CURRENT	10 max.	. . . μ amp
PEAK CATHODE-CURRENT DENSITY	100 max.	μ amp/sq. in.
AVERAGE CATHODE CURRENT ^o	2 max.	. . . μ amp
AMBIENT TEMPERATURE	75 max.	. . . $^{\circ}$ C

Characteristics:

	<u>Min.</u>	<u>Av.</u>	<u>Max.</u>	
Dark Current at 90 Volts . .	-	-	0.050	. . μ amp
Sensitivity:				
At 4000 Angstroms.	-	0.11	-	μ amp/ μ watt
Luminous: [▲]				
At 0 Cycles.	80	120	175	μ amp/lumen
At 5000 Cycles	-	110	-	μ amp/lumen
At 10000 Cycles	-	96	-	μ amp/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 μ amp	0.1	megohm
	below 3 μ amp	No Minimum	

With anode-supply voltage of 100 volts

For dc currents {	above 1 μ amp	2.5	megohms
	below 1 μ amp	0.1	megohm

* , ^o , [▲] : See next page.

← Indicates a change.

JUNE 15, 1948

TUBE DEPARTMENT

DATA

RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY



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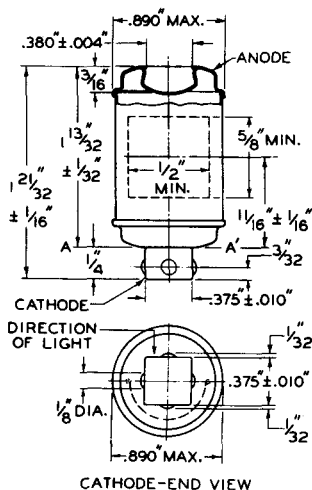
GAS PHOTOTUBE

- * 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 the front of this tube.

SPECTRAL-SENSITIVITY CHARACTERISTIC
of Phototube having S-4 Response
and

FREQUENCY-RESPONSE CHARACTERISTICS of Gas Phototubes

are shown at the front of this Section

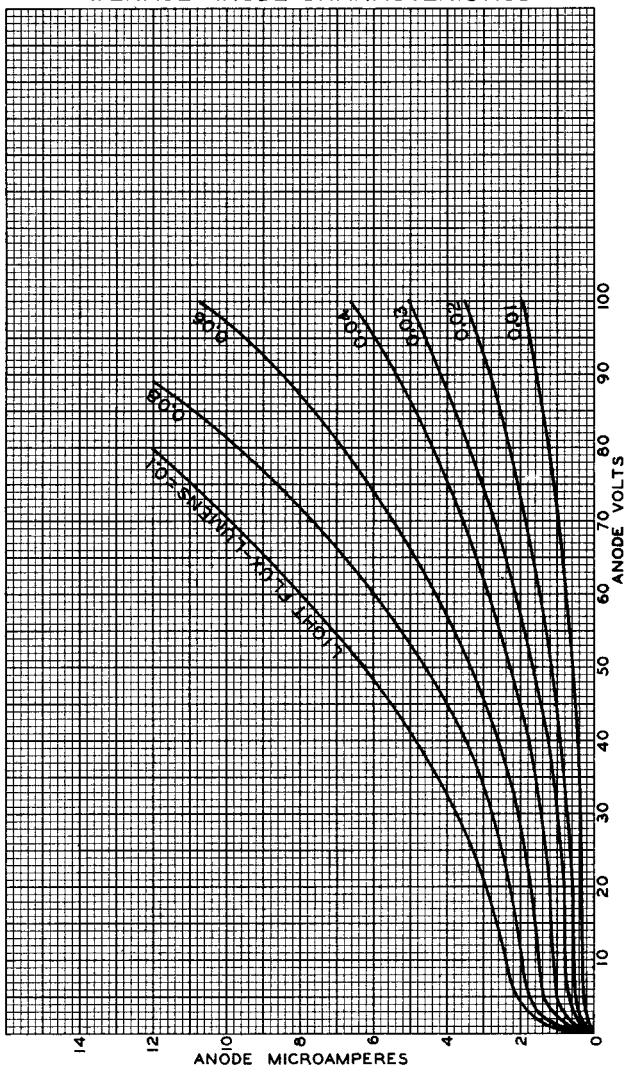


92CM-4818R2



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AVERAGE ANODE CHARACTERISTICS



DEC.27, 1946

TUBE DEPARTMENT
RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY

92CM-6823



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GAS PHOTOTUBE

CARTRIDGE TYPE WITH S-4 RESPONSE

For sound reproduction involving a dye-image sound track
in conjunction with an incandescent light source

DATA

General:

Spectral Response. S-4
Wavelength of Maximum Response 4000 $\pm$ 500 angstroms

Cathode:

Shape. Semicylindrical
Minimum projected length*. 5/8"
Minimum projected width*. 1/2"

Direct Interelectrode Capacitance. 1 μ mf

Overall Length 1-21/32" $\pm$ 1/16"

Seated Length. 1-13/32" $\pm$ 1/32" $\leftarrow$

Length from Center of Useful Cathode Area

to Plane A-A' (See Dimensional Outline). . . 11/16" $\pm$ 1/16"

Maximum Diameter 0.890"

Weight (Approx.) 0.4 oz $\leftarrow$

Mounting Position. Any $\leftarrow$

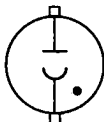
Terminals:

Recessed cap JETEC No. J1-23 $\leftarrow$

Protruding cap JETEC No. J1-24 $\leftarrow$

Basing Designation 2A0 $\leftarrow$

Recessed } Anode
Cap }



Protruding } Cathode
Cap }

DIRECTION OF LIGHT
INTO CONCAVE SIDE
OF CATHODE

Maximum Ratings, Absolute Values:

ANODE-SUPPLY VOLTAGE (DC or Peak AC) . . . 100 max. volts $\leftarrow$

AVERAGE CATHODE-CURRENT DENSITY^o . . . 20 max. μ amp/sq. in. $\leftarrow$

AVERAGE CATHODE CURRENT^o 2 max. μ amp $\leftarrow$

AMBIENT TEMPERATURE. 75 max. $^{\circ}$ C

Characteristics, At 90 Volts on Anode:

Min. Median Max.

Sensitivity:

Radiant, at

4000 angstroms - 0.12 - μ amp/ μ watt $\leftarrow$

Luminous:[▲]

At 0 cps 80 120 175 μ amp/lumen

At 5000 cps. - 110 - μ amp/lumen

At 10000 cps - 96 - μ amp/lumen

Gas Amplification Factor - - 5.5

Anode Dark Current

at 25 $^{\circ}$ C. - - 0.05 μ amp

* on plane perpendicular to indicated direction of incident light.

^o, [▲]: See next page.

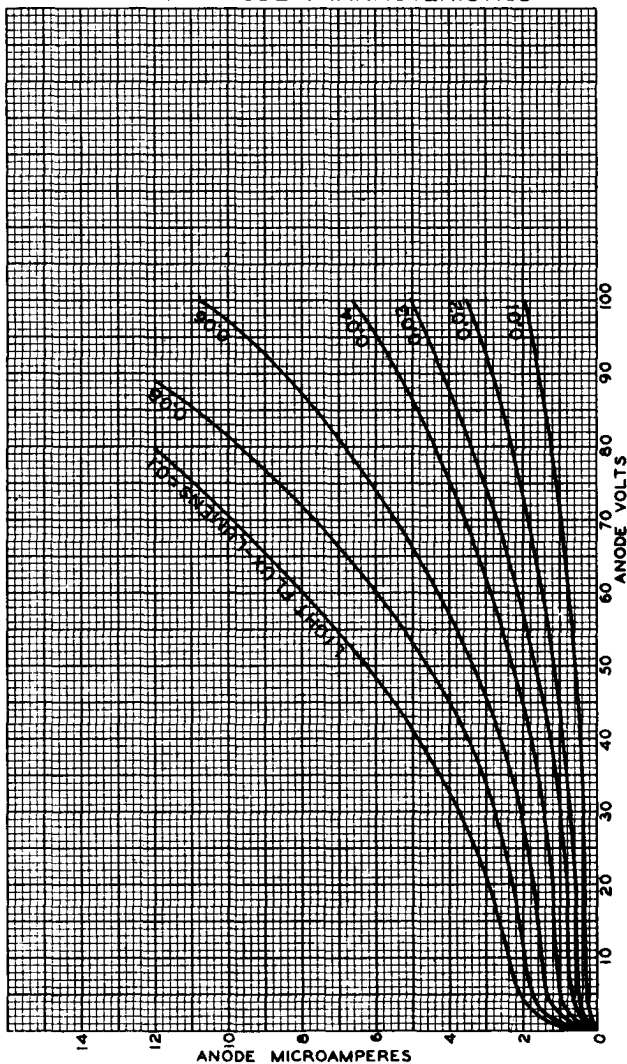
$\leftarrow$ Indicates a change.



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AVERAGE ANODE CHARACTERISTICS



DEC. 27, 1946

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