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GAS PHOTOTUBE

CARTRIDGE TYPE WITH S-4 RESPONSE

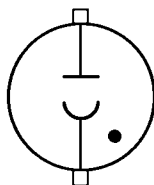
For sound reproduction involving a dye-image sound track
in conjunction with an incandescent light source

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 f
Overall Length	1-21/32" $\pm$ 1/16"
Seated Length.	1-13/32" $\pm$ 1/32"
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
Mounting Position.	Any
Terminals:	
Recessed cap	JETEC No. J1-23
Protruding cap	JETEC No. J1-24
Basing Designation	2A0

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
AVERAGE CATHODE-CURRENT DENSITY ^o	20 max.	μ amp/sq. in.
AVERAGE CATHODE CURRENT ^o	2 max.	μ amp
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
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.

← Indicates a change.

GAS PHOTOTUBE

Minimum Circuit Values:

With anode-supply voltage of 80 or less 100 volts

DC Load Resistance:

For dc currents above

3 μ amp 0.1 min. — megohm

For dc currents below

3 μ amp 0 min. - megohm

For dc currents above

1 μ amp - 2.5 min. megohms

For dc currents below

1 μ amp - 0.1 min. megohm

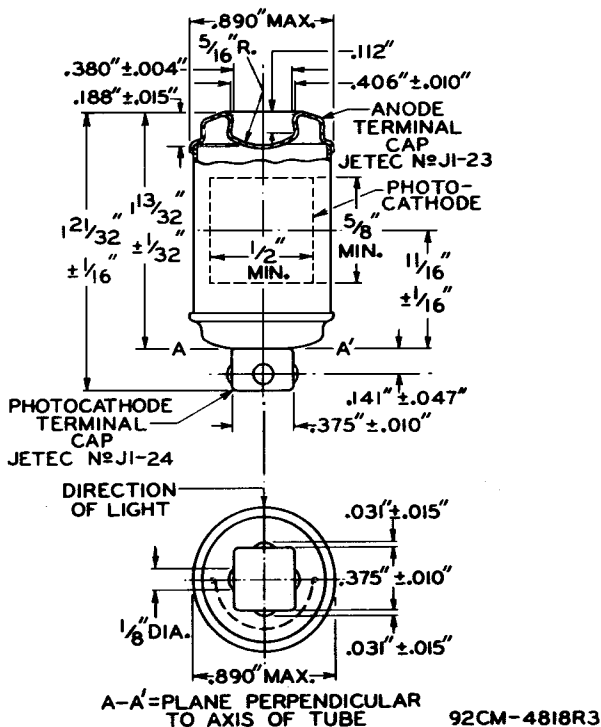
0 Averaged over any interval of 30 seconds maximum. This value may be doubled when anode-supply voltage is limited to 80 volts.

▲ 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 measurements, 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.

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

FREQUENCY-RESPONSE CHARACTERISTICS of Gas Phototubes

are shown at the front of this Section

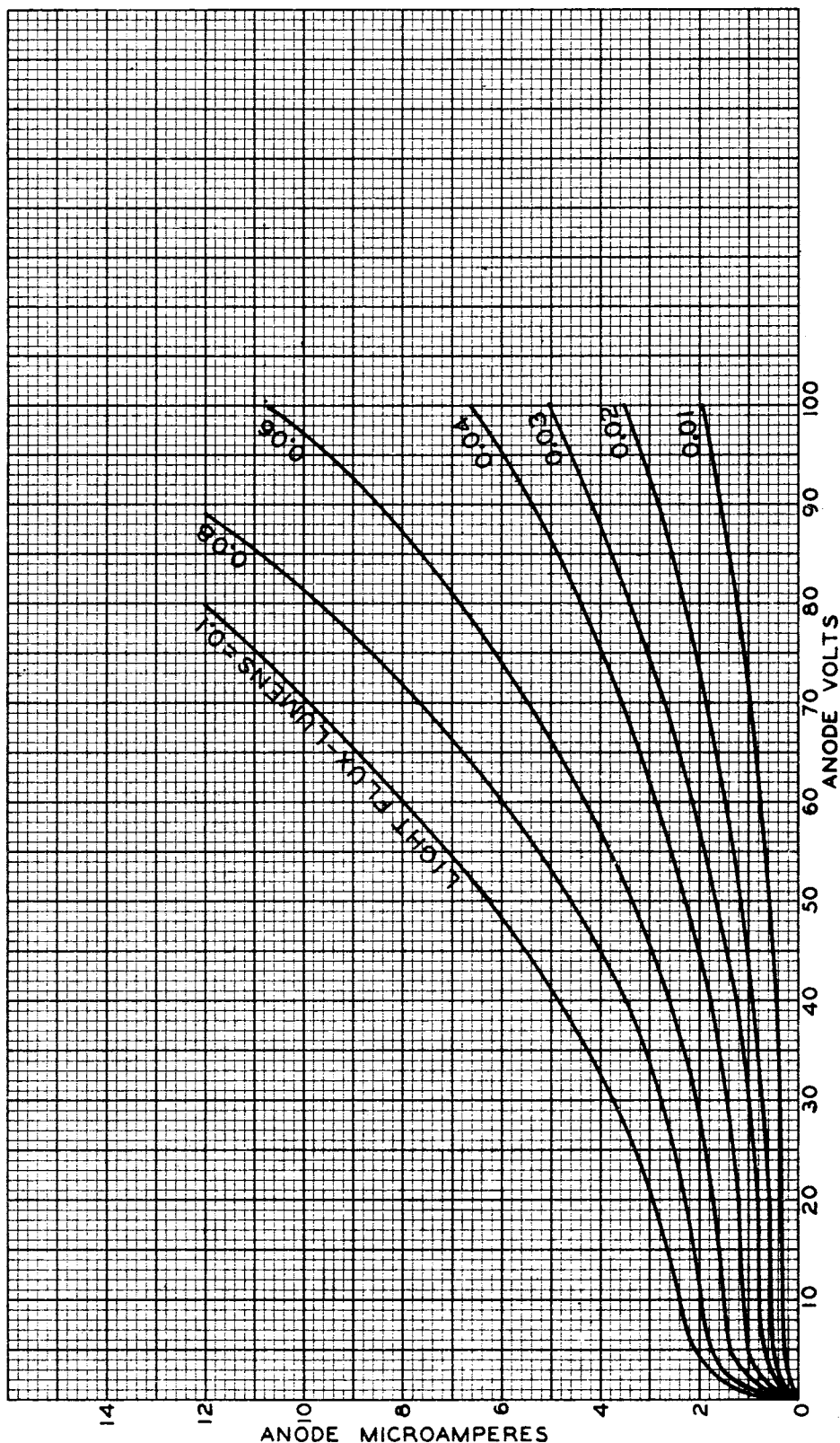




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AVERAGE ANODE CHARACTERISTICS



DEC. 27, 1946

TUBE DEPARTMENT
RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY

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