

Vacuum Phototube

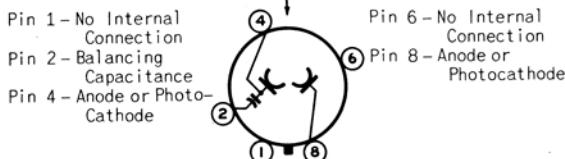
COMPOSITE-ANODE-CATHODE, SIDE-ON TYPE HAVING S-4 RESPONSE

DATA

General:

Spectral Response	S-4
Wavelength of Maximum Response.	4000 $\pm$ 500 angstroms
Cathode:	
Shape	Flat
Minimum projected length ^a	19/32"
Minimum projected width ^a	1/4"
Direct Interelectrode Capacitances (Approx.):	
Between base pins 4 and 8 (C ₁)	1 μ f
Balancing capacitance (C ₂) ^b	1 μ f
Capacitance Difference between C ₁ and C ₂	0.3 max. μ f
Maximum Overall Length.	2-7/8"
Maximum Seated Length	2-5/16"
Seated Length to Center of Cathode.	1-5/8" $\pm$ 3/32"
Maximum Diameter.	1-9/32"
Operating Position.	Any
Weight (Approx.)	1 oz $\leftarrow$
Bulb.	T9
Socket.	Cinch No.8JM-1, or equivalent $\leftarrow$
Base.	Intermediate-Shell Octal 5-Pin, Arrangement 1 (JEDEC Group 1, No.B5-10) Non-hygroscopic
Basing Designation for BOTTOM VIEW.	2AB

DIRECTION OF LIGHT



Maximum Ratings, Absolute-Maximum Values:

ANODE-SUPPLY VOLTAGE (DC or Peak AC).	250 max.	volts
AVERAGE CATHODE-CURRENT DENSITY ^c	30 max.	μ a/sq.in.
AVERAGE CATHODE CURRENT ^c	4 max.	μ a
AMBIENT TEMPERATURE	75 max.	$^{\circ}$ C

Characteristics:

With an anode-supply voltage of 250 volts
Min. Median Max.

Sensitivity:			
Radiant, at 4400 angstroms.	-	0.044	- amp/watt
Luminous ^d	19	45	70 μ a/lumen
Ratio of Cathode Luminous Sensitivities	0.42	1.0	2.4
Anode Dark Current at 25 $^{\circ}$ C	-	-	0.01 μ a

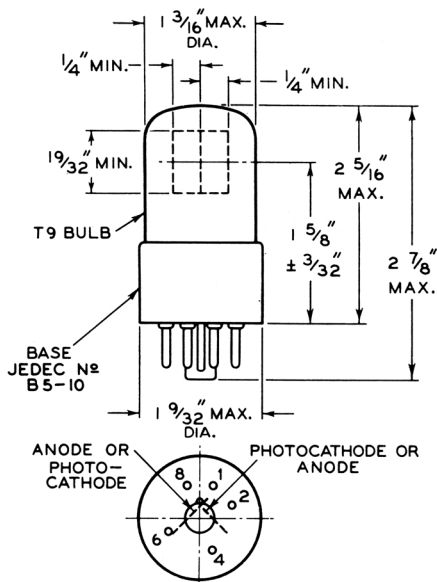
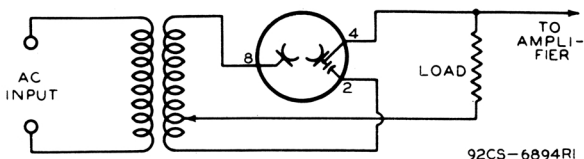
$\leftarrow$ Indicates a change.



- a On plane perpendicular to indicated direction of incident light.
- b Measured between pins 2 and 4.
- c Averaged over any interval of 30 seconds maximum.
- d For conditions where the light source is a tungsten-filament lamp operated at a color temperature of 2870° K. A 1-megohm load resistor and a light input of 0.02 lumen are used.

SPECTRAL-SENSITIVITY CHARACTERISTIC OF PHOTOSENSITIVE DEVICE HAVING S-4 RESPONSE is shown at the front of this section

TYPICAL CIRCUIT



TYPICAL OPERATION CHARACTERISTICS

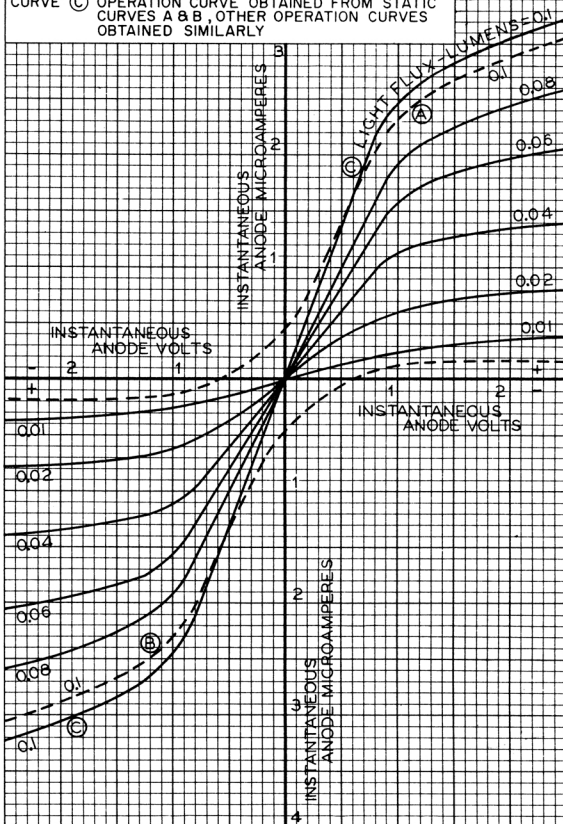
With AC Voltage Applied Between the Two Electrodes

LIGHT SOURCE IS A TUNGSTEN-FILAMENT LAMP
OPERATED AT A COLOR TEMPERATURE OF 2870° K.
LOAD RESISTANCE : ZERO

DASHED CURVE (A) STATIC CHARACTERISTIC FOR ONE
ELECTRODE WITH 0.1 LUMEN

DASHED CURVE (B) STATIC CHARACTERISTIC FOR OTHER
ELECTRODE WITH 0.1 LUMEN

CURVE (C) OPERATION CURVE OBTAINED FROM STATIC
CURVES A & B, OTHER OPERATION CURVES
OBTAINED SIMILARLY



92CM-6895RI



RADIO CORPORATION OF AMERICA
Electronic Components and Devices

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DATA 2
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