



6323

MULTIPLIER PHOTOTUBE

9-Stage Type with S-4 Response
for Headlight-Control Service
TENTATIVE DATA

RCA-6323 is a 9-stage multiplier phototube intended especially for automobile headlight-dimming service. Small in size and ruggedly constructed, the 6323 features high luminous sensitivity which allows use of an amplifier with relatively low-impedance input and fewer stages, and provides instantaneous response to meet the critical timing requirements of headlight-control service. In addition, the 6323 has low electrode dark current which permits the use of high-resistance voltage-divider networks. When thus used, the 6323 is capable of providing stable performance over long periods in headlight-dimming service.

DATA

General:

Spectral Response	S-4
Wavelength of Maximum Response.	4000 $\pm$ 500 angstroms
Cathode:	
Minimum Projected Length*	15/16"
Minimum Projected Width*	5/16"
Direct Interelectrode Capacitances (Approx.):	
Anode to Dynode No.9.	4 $\mu\mu\text{f}$
Anode to All Other Electrodes	6.5 $\mu\mu\text{f}$
Maximum Overall Length.	3-11/16"
Maximum Seated Length	3-1/8"
Length from Base Seat to Center of Useful Cathode Area.	1-15/16" $\pm$ 3/32"
Maximum Diameter.	1-5/16"
Bulb.	T-9
Base.	Small-Shell Submagnet 11-Pin, Non-hygroscopic (JETEC No. B11-88)
Mounting Position	Any

Maximum Ratings, Absolute Values:

ANODE SUPPLY VOLTAGE (DC or Peak AC) $\square$	1250 max.	volts
SUPPLY VOLTAGE BETWEEN DYNODE No.9 AND ANODE (DC or Peak AC).	250 max.	volts
ANODE CURRENT:		
Peak.	1 max.	ma
Average $^{\circ}$	0.1 max.	ma
AMBIENT TEMPERATURE	75 max.	$^{\circ}\text{C}$

Characteristics Range Values for Equipment Design:#

Under conditions with supply voltage (E) across voltage divider providing $1/10$ of E between cathode and dynode No.1; $1/10$ of E for each succeeding dynode stage; and $1/10$ of E between dynode No.9 and anode

With $E = 1000$ volts

	Min.	Av.	Max.	
Sensitivity:				
Radiant [●] , at 4000 angstroms	—	32500	—	$\mu\text{amp}/\mu\text{watt}$
Luminous [▲]	5	35	250	amp/lumen
Electrode Dark Current at 25°C:				
Anode	—	—	0.1	μamp
Any Other Electrode	—	—	0.75	μamp

* On plane perpendicular to indicated direction of incident light.

□ Referred to cathode.

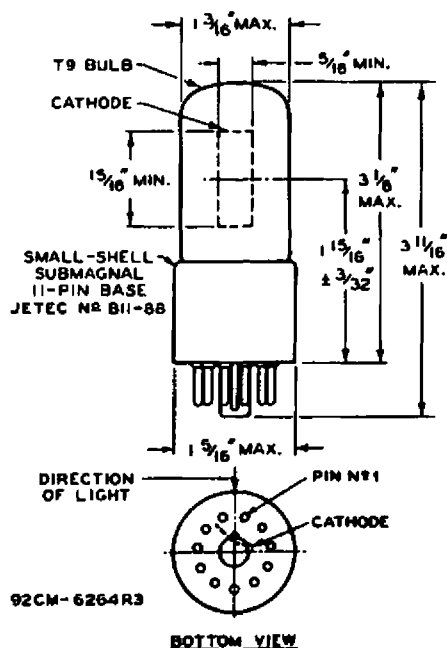
○ Averaged over any interval of 30 seconds maximum.

The 6323 is processed during manufacture and tested under simulated headlight-control operating conditions to provide the high stability needed in headlight-control service.

● The radiant sensitivity of a phototube is the quotient of output current by incident radiant energy of a given wavelength at constant electrode voltages.

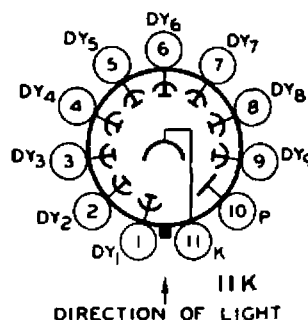
▲ For conditions where the light source is a tungsten-filament lamp operated at a color temperature of 2870°K. A light input of 10 microlumens is used. The load resistor has a value of 0.01 megohm.

DIMENSIONAL OUTLINE



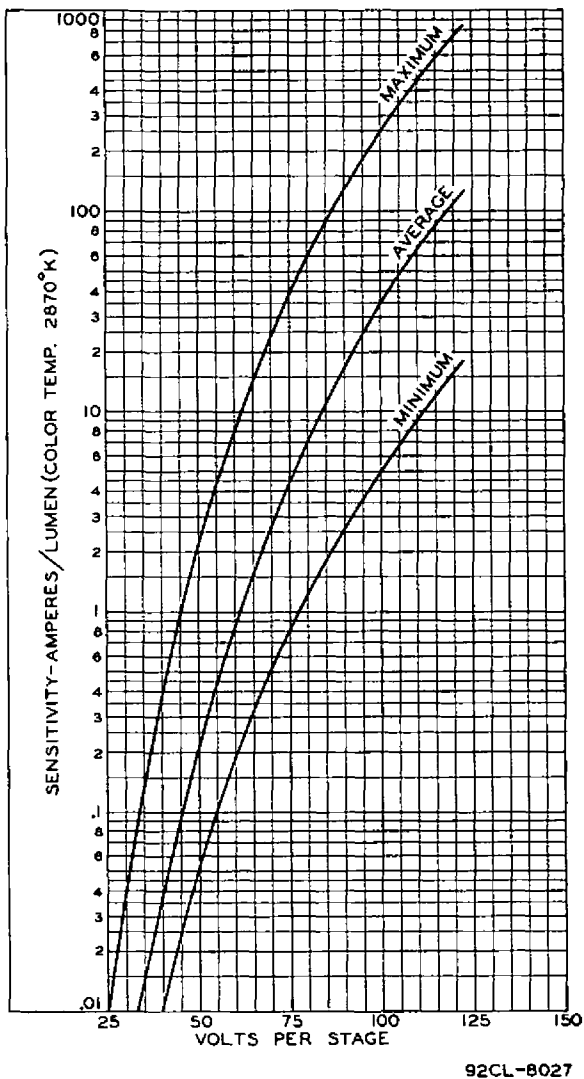
SOCKET CONNECTIONS

Bottom View

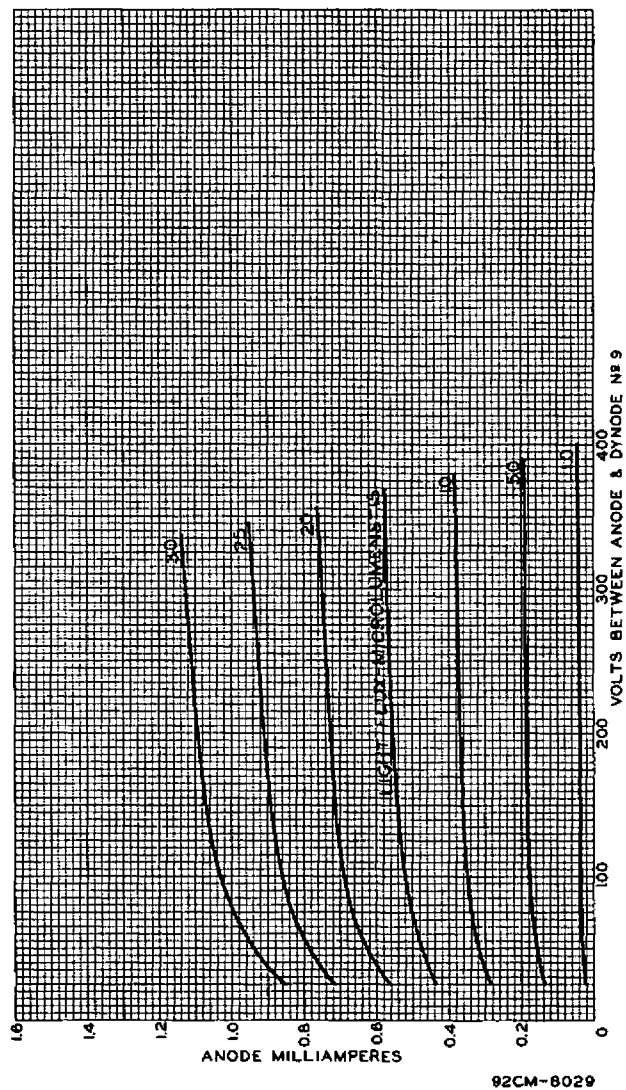


- PIN 1: DYNODE No.1
- PIN 2: DYNODE No.2
- PIN 3: DYNODE No.3
- PIN 4: DYNODE No.4
- PIN 5: DYNODE No.5
- PIN 6: DYNODE No.6
- PIN 7: DYNODE No.7
- PIN 8: DYNODE No.8
- PIN 9: DYNODE No.9
- PIN 10: ANODE
- PIN 11: CATHODE

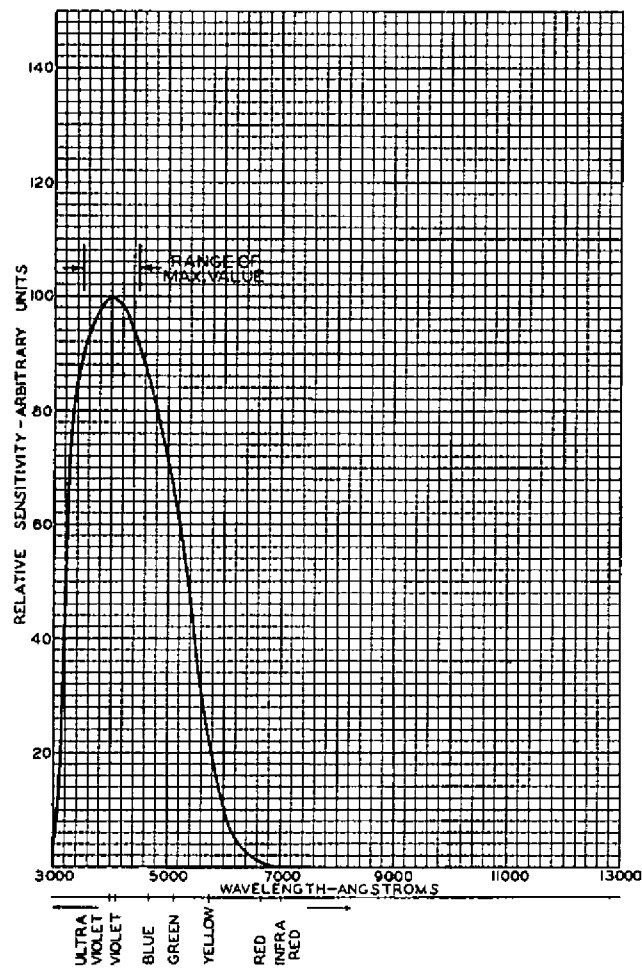
◊ OF BULB WILL NOT DEVIATE MORE THAN 2°
IN ANY DIRECTION FROM THE PERPENDICULAR
ERECTED AT CENTER OF BOTTOM OF BASE.



Range of Luminous Sensitivity
of Type 6323.



Average Anode Characteristics
of Type 6323.



92CM-6152R7

Spectral Sensitivity Characteristic of Type 8323 which has S-4 Response. Curve is shown for Equal Values of Radiant Flux at All Wavelengths.

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