



921

## GAS PHOTOTUBE

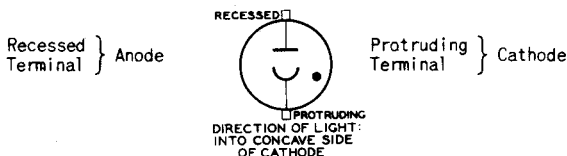
CARTRIDGE TYPE WITH S-1 RESPONSE

## DATA

## General:

Spectral Response . . . . .	S-1
Wavelength of Maximum Response. . . . .	8000 ± 1000 Angstroms
Cathode:	
Shape . . . . .	Semi-Cylindrical
Minimum Projected Length* . . . . .	7/8"
Minimum Projected Width*. . . . .	1/2"
Direct Interelectrode Capacitance . . . . .	1.0 $\mu$ f
Overall Length. . . . .	1-21/32" ± 1/16"
Seated Length . . . . .	1-13/32" ± 1/32"
Length, Cathode Center to plane A-A' (See Outline) . . . . .	11/16" ± 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)	90 max. . . . .	volts
PEAK CATHODE CURRENT. . . . .	10 max. . . . .	$\mu$ amp
PEAK CATHODE-CURRENT DENSITY. . . . .	100 max. . . . .	$\mu$ amp/sq. in.
AVERAGE CATHODE CURRENT <sup>o</sup> . . . . .	3 max. . . . .	$\mu$ amp
AMBIENT TEMPERATURE . . . . .	100 max. . . . .	<sup>o</sup> C

## Characteristics:

	<u>Min.</u>	<u>Average</u>	<u>Max.</u>	
Dark Current at 90 Volts. . . . .	-	-	0.1 . . . . .	$\mu$ amp
Sensitivity:				
At 8000 Angstroms . . . . .	-	0.0135	-	$\mu$ amp/ $\mu$ watt
Luminous: <sup>▲</sup>				
At 0 Cycles . . . . .	75	135	205	$\mu$ amp/lumen ←
At 5000 Cycles. . . . .	-	119	-	$\mu$ amp/lumen
At 10000 Cycles . . . . .	-	108	-	$\mu$ amp/lumen
Gas Amplification Factor. . . . .	-	-	10	

\* 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 70 volts.

▲ Measured under conditions specified on sheet "PHOTOTUBE SENSITIVITY and SENSITIVITY MEASUREMENTS", at the front of this Section.

← Indicates a change.





921

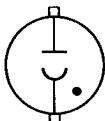
921

**GAS PHOTOTUBE**

CARTRIDGE TYPE WITH S-1 RESPONSE

*For relay applications***DATA****General:**

Spectral Response . . . . .	S-1
Wavelength of Maximum Response . . . . .	8000 ± 1000 angstroms
athode:	
Shape . . . . .	Semicylindrical
Minimum projected length* . . . . .	7/8"
Minimum projected width* . . . . .	1/2"
Direct Interelectrode Capacitance . . . . .	1 μmf
Overall Length . . . . .	1-21/32" ± 1/16"
Seated Length . . . . .	1-13/32" ± 1/32"
Length from Center of Useful Cathode Area to Plane A-A' ( <i>See Dimensional Outline</i> ) . . . . .	11/16" ± 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 . . . . .	2A9 ←

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) . . . . .	90 max.	volts ←
AVERAGE CATHODE-CURRENT DENSITY <sup>o</sup> . . . . .	30 max.	μamp/sq. in. ←
AVERAGE CATHODE CURRENT <sup>o</sup> . . . . .	3 max.	μamp ←
AMBIENT TEMPERATURE . . . . .	100 max.	°C ←

**Characteristics, At 90 Volts on Anode:**

	Min.	Median	Max.	
Sensitivity:				
Radiant, at 8000 angstroms . . . . .	-	0.012	-	μamp/μwatt ←
Luminous: <sup>▲</sup>				
At 0 cps . . . . .	75	135	205	μamp/lumen
At 5000 cps . . . . .	-	119	-	μamp/lumen
At 10000 cps . . . . .	-	108	-	μamp/lumen
Gas Amplification Factor, at Dark Current at 25°C . . . . .	-	-	10	←
			0.01	μamp ←

\* On plane perpendicular to indicated direction of incident light.

o, ▲: See next page.

← indicates a change.

