



# PHOTOTUBE

## DESCRIPTION

The GL-919 is a two-electrode vacuum phototube for measurement and relay applications. It has high sensitivity in the red and infrared regions of the spectrum. Construction affords high resistance to leakage current between electrodes, with resultant stability of operation and permanence of

calibration. The cathode of the GL-919 is connected to the top cap, while in the GL-917 the anode is connected to the top cap. As a result of this reversal of connections, the GL-919 may be used in series with the GL-917 with resultant very small leakage current and high over-all sensitivity.

## TECHNICAL INFORMATION

*These data are for reference only. For design information refer to specifications.*

### GENERAL CHARACTERISTICS

|                                                  |        |                            |
|--------------------------------------------------|--------|----------------------------|
| Number of electrodes.....                        | 2      |                            |
| <b>Electrical</b>                                |        |                            |
| Spectral response.....                           | S-1    |                            |
| Luminous sensitivity at 250 volts, 0 cycles..... | 20     | microamperes per lumen     |
| Interelectrode capacitance.....                  | 2.0    | micromicrofarads           |
| Maximum dark current at 250 volts.....           | 0.1    | microamperes               |
| Wavelength of maximum response.....              | 8000   | angstroms                  |
| Sensitivity at maximum response.....             | 0.0020 | microamperes per microwatt |



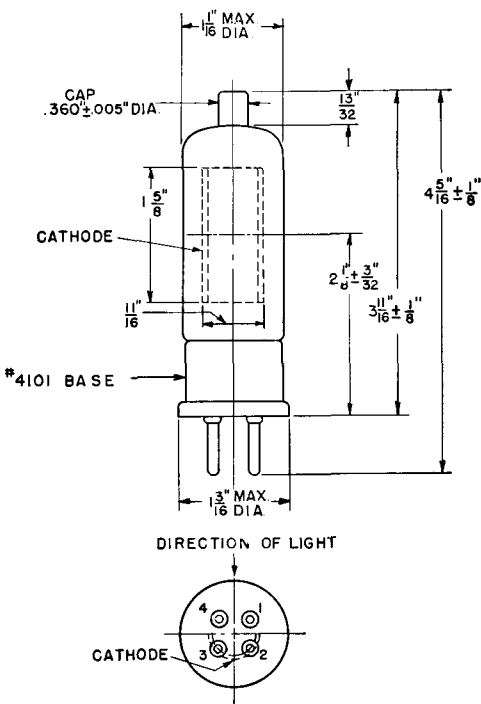
TECHNICAL INFORMATION (CONT'D)

Mechanical

|                                                |                                            |
|------------------------------------------------|--------------------------------------------|
| Window dimensions                              | $\frac{11}{16} \times 1\frac{5}{8}$ inches |
| Seated height to center of useful cathode area | $2\frac{1}{8} \pm \frac{3}{32}$ inches     |
| Maximum over-all height                        | $4\frac{7}{16}$ inches                     |
| Maximum seated height                          | $3\frac{13}{16}$ inches                    |
| Maximum diameter                               | $1\frac{3}{16}$ inches                     |
| Cap                                            | M8-125                                     |
| Base                                           | M8-074                                     |
| Mounting position                              | Any                                        |
| Net weight, approx                             | $\frac{3}{4}$ ounce                        |
| Shipping weight, approx                        | 3 pounds                                   |

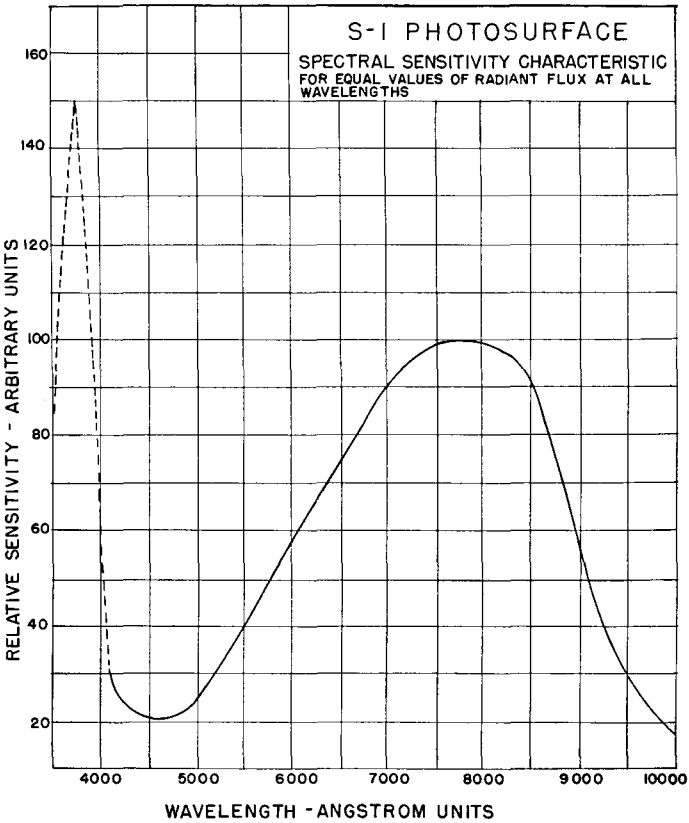
MAXIMUM RATINGS

|                                |                                  |
|--------------------------------|----------------------------------|
| Anode voltage, d-c or peak a-c | 500 volts                        |
| Cathode current density        | 152 microamperes per square inch |
| Ambient temperature            | 100 centigrade                   |



| PIN     | GL-917  | GL-919  |
|---------|---------|---------|
| 1       |         |         |
| 2       |         | ANODE   |
| 3       |         |         |
| 4       | CATHODE |         |
| TOP CAP | ANODE   | CATHODE |

OUTLINE  
PHOTOTUBE GL-919  
K-8277038 6-30-44



K-8639626

4-17-44