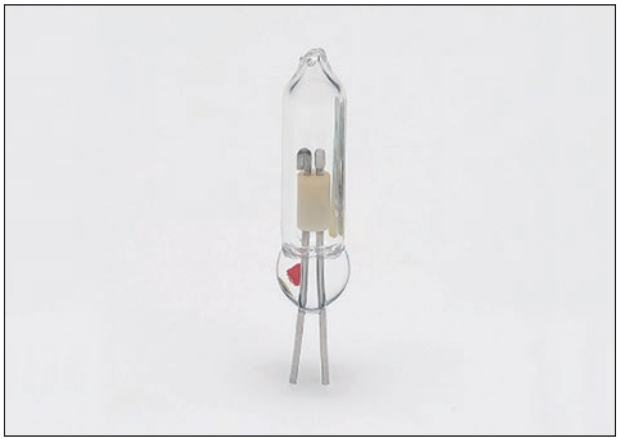
HAMAMATSU

PHOTON IS OUR BUSINESS

CHECKER LAMP FOR UVTRON®
L9657-03

The L9657-03 checker lamp is a UV lamp designed to check the operation of UVTRON discharge / flame sensors which are widely used for fire alarm and combustion monitoring devices. Since the L9657-03 is very small and highly reliable in lighting up, it can be assembled with a UVTRON into devices to check UVTRON operation easily and accurately.
Checking UVTRON operation helps improve the reliability of the devices that use UVTRON discharge / flame sensors.



SPECIFICATIONS

GENERAL

Parameter	Description / Value	Unit
Spectral distribution	185 to 400	nm
Window material	UV glass	—
Operating temperature range	-40 to +125	°C
Storage temperature range	-20 to +60	°C
Driver circuit (sold separately)	C13428	—

MAXIMUM RATINGS

Parameter	Description / Value	Unit
Supply voltage (DC)	600	V
Peak current ①	200	μA

RECOMMENDED OPERATING CONDITIONS AND CHARACTERISTICS (at 25 °C)

Parameter	Description / Value	Unit
Discharge starting voltage (DC) (Max.)	260	V
Recommended supply voltage (DC)	300	V
Recommended discharge current	150	μA
Guaranteed life ②	1000	h

NOTE:

①Operating at a current higher than this value may drastically shorten the operating life.

②Life end is defined as the time that the radiant intensity falls to 50 % of its initial value.

Figure 1: Spectral distribution

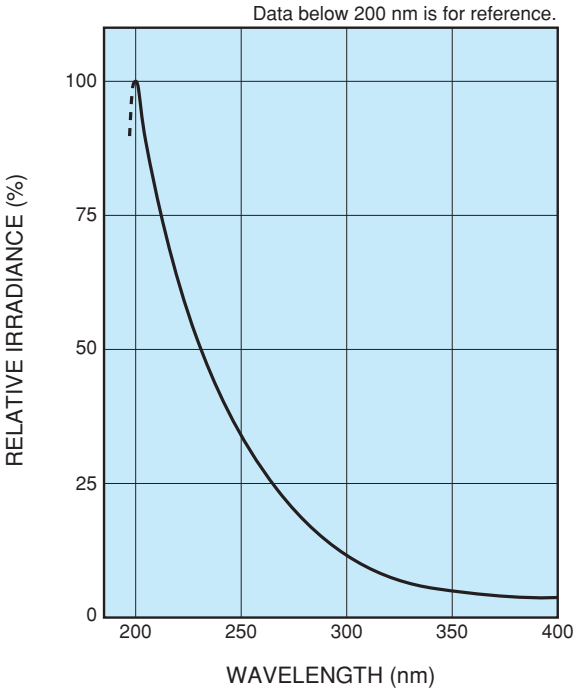
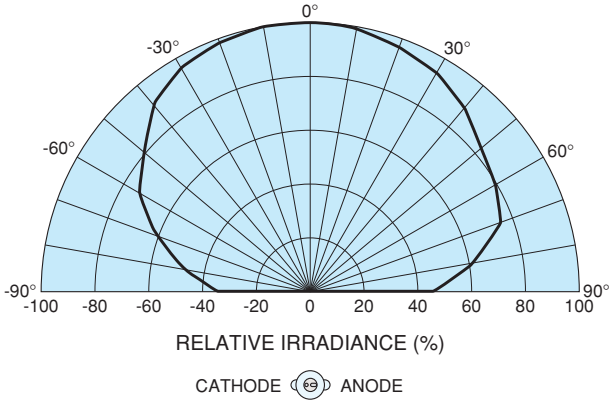


Figure 2: Directivity (light distribution)



●Measurement image

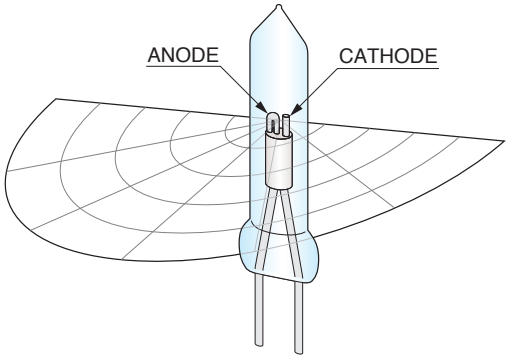


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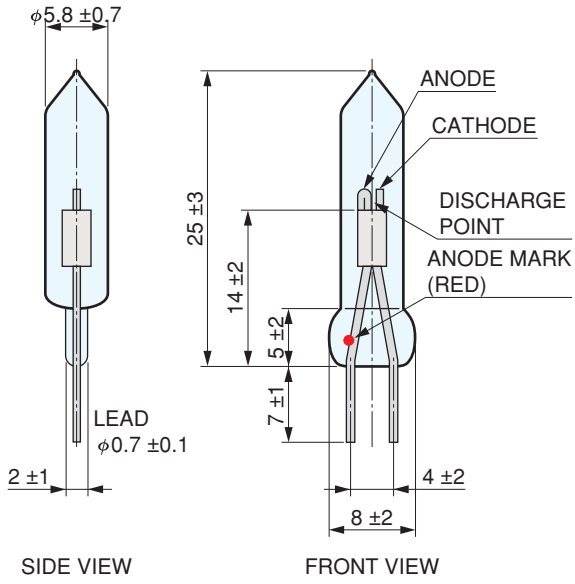
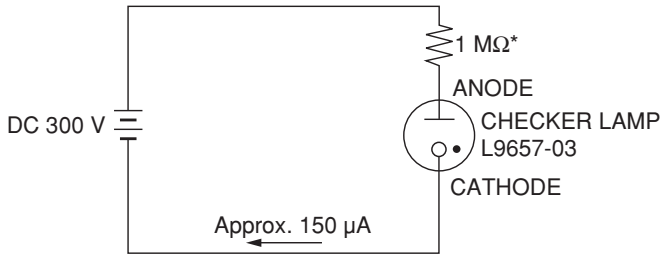
Figure 3: Dimensional outlines (Unit: mm)



Weight: Approx. 0.74 g

Figure 4: Recommended operating circuit



* This 1 MΩ resistor must be connected within 1 cm from the end of the anode lead of the L9657-03 checker lamp.

■HANDLING PRECAUTIONS

●Soldering

When mounting the L9657-03 on a printed circuit board, solder the leads as quickly as possible (350 °C within 5 seconds). If the leads are heated excessively, the glass bulb may crack and the performance characteristics may deteriorate.

●Shock

The L9657-03 is designed to pass shock test in compliance with IEC 60068-2-27 (1000 m/s², 11 ms). However, if subjected to strong mechanical shocks such as drop impacts, the glass bulb might crack or the internal electrode deform, causing poor electrical characteristics. So use extreme caution when handling.

●Polarity

The L9657-03 has an anode and cathode, so be sure to connect them with the correct polarity. Mistakenly reversing the connection polarity may cause malfunction or breakdown.

●Use in the dark

Avoid using the L9657-03 in the dark at an illuminance of 50 lx or less.

Lighting performance is significantly deteriorated in the dark at an illuminance of 50 lx or less, as photoelectron emission amount from cathode on the checker lamp decreases. To use the checker lamp in the dark, we recommend using with C13248 (driver circuit) that has white LED to support the checker lamp being turned on. Other than C13248, we recommend using light sources to support lighting, such as white LED.

●Use after long-term storage

The amount of ions inside the bulb decreases after a long period of storage and this may cause the discharge starting voltage to increase and the lighting performance to deteriorate as in the case in the dark. So before using the L9657-03 after long-term storage, make sure that it lights up properly.

■WARRANTY

The L9657-03 is covered by a warranty for a period of one year from the date of delivery. The warranty is limited to replacement of the defective product. Even if within one year after delivery, the warranty will not cover any defect when the operating time has exceeded the guaranteed life. The warranty will also not cover any malfunction or trouble caused by improper use or natural disaster.

* UVTRON is a registered trademark of Hamamatsu Photonics K. K.

HAMAMATSU PHOTONICS K.K. **www.hamamatsu.com**

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