

Operation notes

Infrared photodiodes, phototransistors and photo IC's transmit light, and for this reason the plastic used for them differs from the black molding materials used for transistors and other IC's in that an almost pure epoxy resin is used. This resin is slightly weaker than the black molding materials in terms of heat tolerance, resistance to chemicals, and mechanical strength, and thus caution must be exercised when handling and mounting these devices.

(1) Soldering

If the leads are under stress when soldering is performed on a printed circuit board, illumination failure may result immediately or later during use. For this reason, make sure that the intervals between the installation holes in the board are equal to the intervals between the leads (after forming if done) so that no stress remains. Ensure as well that the plastic body of the element is not subjected to stress during soldering as this may also cause illumination failure (this applies to emitters, detectors, interrupters, and reflectors).

Use a rosin-based flux. Highly acidic or alkaline fluxes may cause corrosion.

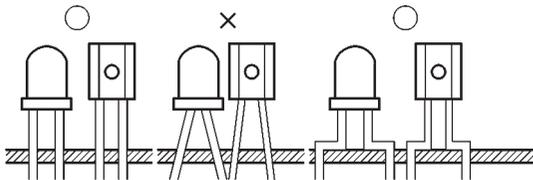


Fig.1 Mounting emitters and detectors on a printed circuit board

We recommend the following soldering conditions :

Item	Conditions	Soldering temperature	Work time
Soldering bath	Separated from resin body by 1.2 mm	260°C maximum	3 seconds maximum
Soldering iron	Separated from resin body by 1.2 mm Watts : 30 W maximum Soldering iron : ϕ 3 mm maximum	300°C maximum	3 seconds maximum

(2) Lead forming

Form leads before soldering, and form them in such a way that stress is not applied to the inside of the plastic body. In addition, do not bend a lead repeatedly in the same place as it may break.

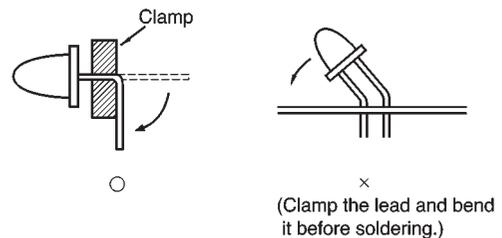


Fig.2 How to form leads

(3) Cleaning

Depending on the solvent used the package may dissolve, and in general, cleaning is not to be performed. However, below is a list of solvents that can be used. Always be sure to confirm the solvent being used beforehand.

Solvents that can be used : Ethyl alcohol
Methyl alcohol
Isopropyl alcohol

Notes

- No technical content pages of this document may be reproduced in any form or transmitted by any means without prior permission of ROHM CO.,LTD.
- The contents described herein are subject to change without notice. The specifications for the product described in this document are for reference only. Upon actual use, therefore, please request that specifications to be separately delivered.
- Application circuit diagrams and circuit constants contained herein are shown as examples of standard use and operation. Please pay careful attention to the peripheral conditions when designing circuits and deciding upon circuit constants in the set.
- Any data, including, but not limited to application circuit diagrams information, described herein are intended only as illustrations of such devices and not as the specifications for such devices. ROHM CO.,LTD. disclaims any warranty that any use of such devices shall be free from infringement of any third party's intellectual property rights or other proprietary rights, and further, assumes no liability of whatsoever nature in the event of any such infringement, or arising from or connected with or related to the use of such devices.
- Upon the sale of any such devices, other than for buyer's right to use such devices itself, resell or otherwise dispose of the same, no express or implied right or license to practice or commercially exploit any intellectual property rights or other proprietary rights owned or controlled by
- ROHM CO., LTD. is granted to any such buyer.
- Products listed in this document use silicon as a basic material.
Products listed in this document are no antiradiation design.

The products listed in this document are designed to be used with ordinary electronic equipment or devices (such as audio visual equipment, office-automation equipment, communications devices, electrical appliances and electronic toys).

Should you intend to use these products with equipment or devices which require an extremely high level of reliability and the malfunction of which would directly endanger human life (such as medical instruments, transportation equipment, aerospace machinery, nuclear-reactor controllers, fuel controllers and other safety devices), please be sure to consult with our sales representative in advance.

About Export Control Order in Japan

Products described herein are the objects of controlled goods in Annex 1 (Item 16) of Export Trade Control Order in Japan.

In case of export from Japan, please confirm if it applies to "objective" criteria or an "informed" (by MITI clause) on the basis of "catch all controls for Non-Proliferation of Weapons of Mass Destruction.