



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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The industry's thinnest\* (0.8mm)

# Compact 4-way Detection Sensor

RPI-1040



\*July 2008 ROHM Survey

## Applications

Automatically orients the image based on camera position, allowing for easy viewing and image correction (i.e. autofocus, white balance adjustment)

### Orientation Detection

For Images  
(Mobile phones, digital cameras)



The image rotates along with the camera

### Image Rotation

For Displays  
(Projectors, photo frames)



### Tilt Detection

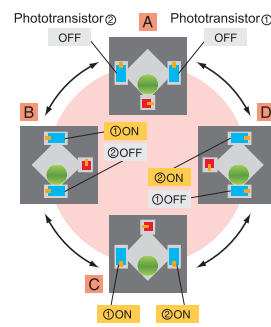
Prevents combustion  
Damage Prevention  
(LCD TVs)



Optimized for any device requiring direction detection functionality

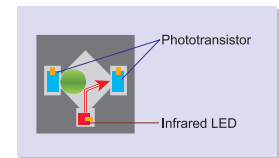
Visit our website for more application examples    
[www.rohm.com/products/opto\\_device/sensor/4\\_direction/uses.html](http://www.rohm.com/products/opto_device/sensor/4_direction/uses.html)

## Operating Principle



An infrared LED and 2 phototransistors are used to detect orientation in 4 directions

Construction



**New noise reduction function**

Noise normally generated during detection is eliminated. Ideal for a wide variety of applications.

**Silent rotation**

## Optical Method - Advantages

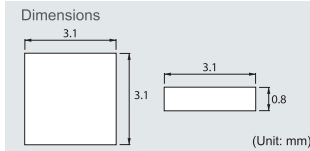
Not susceptible to vibration or magnetic fields

Method	Vibration	Magnetic Field
Optical	○	○
Mechanical	△	○
Magnetic	○	×

## Electrical Characteristics

	Typ.	Conditions
Collector Current	1mA	IF=5mA, VCE=5V (While Dark)
Leakage Current	0.1mA	IF=5mA, VCE=5V (While Dark)

## 0.8mm Thin



37% smaller and 79% less volume than conventional products



Conventional Product

RPI-1040



Conventional Product

RPI-1040

Excellence in Electronics



ROHM CO., LTD.

- The data for the product described in this document are intended for reference purposes only. Please verify the specifications before usage.
- Please note that ROHM cannot bear any responsibility regarding any problems related to industrial property rights resulting from their use thereof.
- The application circuit examples, information, and various data pertaining to the use of the products presented in this document are provided for reference purposes only.

The products listed above are designed to be used with ordinary electronic equipment or devices (i.e. audio visual equipment, office automation equipment, communications devices, electrical appliances, electronic toys). Should these products be used with equipment or devices which require an extremely high level of reliability and the malfunction of which would directly endanger human life (e.g. medical instruments, transportation equipment, aerospace machinery, nuclear reactor controllers, fuel controllers and other safety devices), it is recommended that a sales representative be consulted in advance.

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