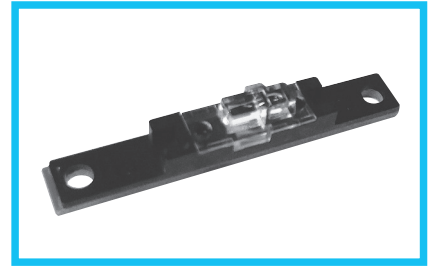


<Low price version>

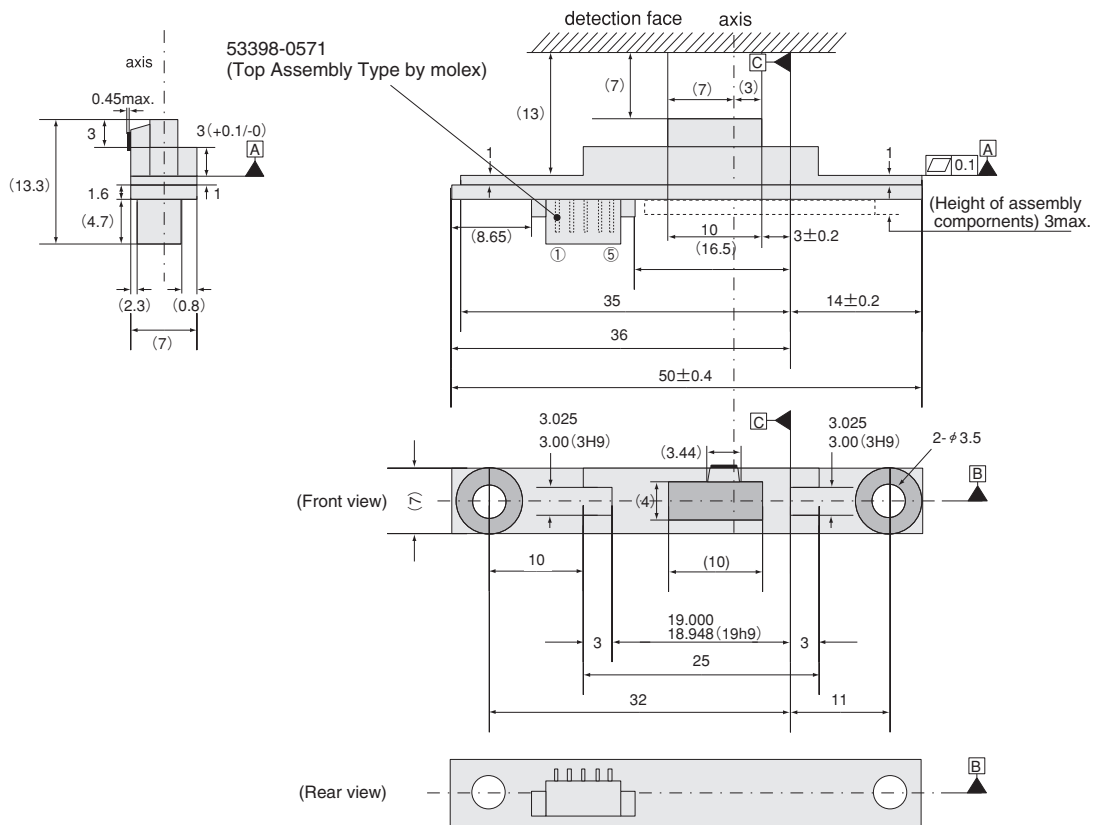
- Part Number : ZHDA1350R

- Characteristics

- Low price version has the same performance as Standard type, and the cost is low.
- Sensor outputs are analog voltage separates P-polarized and S-polarized.
- Sensor outputs are not influenced by a color of toner and quantity of toner was detected by this sensor stably.
 - ※By calculating sensor output P voltage and S voltage ,can be gained in proportion of the toner unattached area.
- Nichicon can design custom-made toner quantity sensor, based on the specific demand from the customer.
 - For example)
 - The supported sensor output rate can be changed
 - The sensor output values can be optionally configured
 - LED lights, the frequency and brightness can be adjusted
- Miniaturized with high performance by COB technology.
- The sensor has a structure to prevent stray light and reduces error of the output.
- Adapted to the RoHS directive (2011 /65/EU,(EU)2015/863).



- Dimensions(Top mount connector)



• Absolute maximum ratings (Ta : 25°C)

Item	Symbol	Range	Unit
Supply voltage	Vcc	0 to + 5.5	V
Operating temperature	Topr	0 to + 55	°C
Storage temperature	Tstg	-20 to + 70	°C

• Recommendation operating conditions

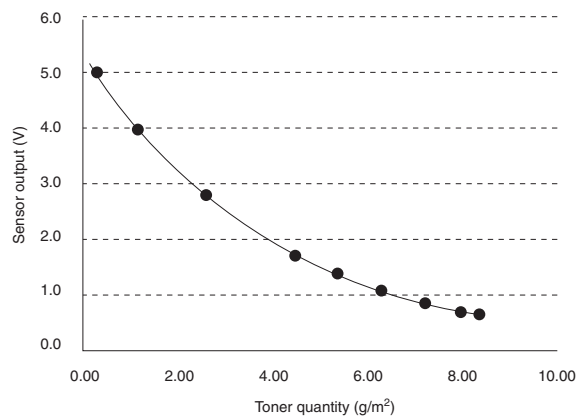
Item	Symbol	Range	Unit
Supply voltage	Vcc	+5.0 ± 0.1	V
Detection distance	Leng	6.5 to 7.5	mm

• LED properties

Item	Symbol	Range	Unit
Radiation frequency (If = 20mA)	λ_d	619 to 629	nm
Peak radiation frequency (If = 20mA)	λ_p	631	nm

※LED properties can be altered upon request.

Sensor output, toner quantity characteristics (example)



※When setting each color of toner, regardless of the color it is possible to adjust to closely similar properties.

※Low price version obtains the characteristics of the graph by calculating the output P voltage and the S voltage.