

Dear Valued Customer I/FUTURE.

Doc. No.: 4822004 Issue date: March 1, 2022

> Tadashi Yamamoto General Manager

Photonics Division Module Headquarters ROHM Co., Ltd.

#### Notification of Product/Process Change

This is an announcement of change(s) to the process of the products currently supplied by ROHM Co., Ltd.

We request your acknowledgement of the receipt of this notification within the given period. Please reply by: September 30, 2022

Title of change	Photo interrupter RPI-0 series Al bag packing specifications unification change application					
	Manufacturer part number	Customer part number				
Affected product(s)	RPI-0* series	RPI-0226( B105-030-A004 )				
	Now	After				
Detailed description of change	The current situation depends on the mo Unified after change.	del. 1 Indicator enclosed 2 With MSL notation 3 Al bag without vacuuming				
Reason for change	Unification to JEDEC-compliant packaging specifications.					
Anticipated impact on quality	Since only the packing condition is changed, there is no effect on quality and characteristics.					
Identification of change	Can be identified by the shipping lot number.					
Planned first ship date : December 1, 2022 Sample available schedule Within 8 weeks from rec						
Attachements (data, report) YES 4ME4822004.pdf						
Comments						

			Reply date				
Customer reply	:		pted with conditions.	3.	Rejected.		
Condition for ap	Condition for approval / reason for rejection						
Comments							
Customer company name							
Customer signature Department							
Customer signat	Customer signature Department						



#### **Notification of Product/Process Change**

#### Doc. No.: 4822004

This letter intends as a formal notification of change to products which are currently supplied by ROHM Co., Ltd.

ROHM Co., Ltd. requires customers to provide acknowledgment of the receipt of this notification within 30 days from the date of this notice. Lack of acknowledgment of this notice within 30 days is considered as acceptance of the change.

Your understanding and cooperation would be highly appreciated.

Issue Date: March 1, 2022

Title of change	Ph	Photo interrupter RPI-0 series Al bag packing specifications unification change application				
Identification of change	Ca	Can be identified by the shipping lot number.				
		Manufacturer part number Customer part number				
Affected product(s)	RP	I-0* series	B105-030-A004 / RPI-0226			
	Be	fore	After			
		e current situation depends on the odel. Unified after change.	<ol> <li>Indicator enclosed</li> <li>With MSL notation</li> <li>Al bag without vacuuming</li> </ol>			
Reason for change		Unification to JEDEC-compliant packaging specifications and prevention of AI bag tearing during transportation				
Anticipated impact on form, fit, function, quality or reliability		Since only the packing condition is changed, there is no effect on quality and characteristics.				
		date December 1, 2022				
Qualification plan schedule, results and samples		If required, please contact the local ROHM sales office or the authorized distributor.				
Comments						
Supplier conta	Supplier contact Please contact the local ROHM sales office or the authorized distributor.					
Notes						
After acknowledgement of the customer, lack of additional response within 90 day period constitutes acceptance of the change according to JEDEC Standard J-STD-046.						



# Photo interrupter RPI-0 series AI bag packing specifications unification change application

No. 4822004 Mar. 1, 2022 ROHM Co., Ltd. Module Corporate Headquarters Module Quality Control Department

## Outline

## [Target Device model]

RPI-0 series (surface mount type photo interrupters, see the table on the right)

#### [Content of Change]

The following three points are unified for the reel packing specifications in aluminum bags. ①Humidity Indicator Card is included.

- ···· Follows J-STD-033D Table 3-1 Dry Packing Requirements
- 2 Mark MSL on the aluminum bag.
  - •••Follows J-STD-033D 3.3.3 Labels

(3) Abolish air discharge (evacuation) in the aluminum bag.

··· Follows J-STD-033D 3.3.5.3 Moisture Barrier Bag Sealing

## [Background]

Conventionally, the packaging specifications for surface-mounted photo interrupters have been met according to the user's request.

As a result, some models were inconsistent with the JEDEC specifications,

and the packaging specifications differed for each model, which made the management of error prevention complicated.

Therefore, we will change all models of surface-mounted photo interrupters to packaging specifications that comply with JEDEC specifications.

#### [Scheduled change date]

October 1, 2022

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Target Device Model	
RPI-0126A	
RPI-0126K	
RPI-0126P	
RPI-0127B	
RPI-0127W2B	
RPI-0128	
RPI-0128G	
RPI-0128G1	
RPI-0128G1Z1	
RPI-0128M	
RPI-0128T81	
RPI-0128W1	
RPI-0128W2	
RPI-0128W2C	
RPI-0128W3	
RPI-0128W5	
RPI-0128X	
RPI-0129	
RPI-0132	
RPI-0225	
RPI-0226	
RPI-0226S030150	
RPI-0226V	
RPI-0226V1	
RPI-0226V1S00	
RPI-0226Z1	
RPI-0227EV	
RPI-0441E	
RPI-0451E	

# 

P. 1

# 

# 4M Change Sheet

No.	It	tem	Before After				
1	Purpose	of change	The packaging specifications, which are different depending on the model, will be unified to the JEDEC specifications. (1)Includes a humidity indicator card. (2)Mark the MSL on the aluminum bag. (3)Completely discharge the air inside the aluminum bag (vacuum packaging) will be abolished.				
2	Target de	evice model	RPI-0 * * * (all surface mount type photo interrupters)				
3	Product	structure	No cha	nge			
4	Changes in app	earance (device)	No cha	nge			
5	Inclusion in <mark>Refe</mark> i	aluminum bag r to P.3	Product / Reel / Taping / Drying material (1)Humidity display card is included in some models.	No change: Product / Reel / Taping / Drying material (1) Unified HIC inclusion for all models HIC			
6	Changes in appearance (packing) Refer to P.4,5		<ul><li>(2) There is a model without MSL notation on the aluminum bag.</li><li>(3) The air inside the aluminum bag is exhausted so that the outer shape of the reel can be clearly identified.</li></ul>	(2) Unified with MSL notation on aluminum bag. (3)The outer shape of the reel cannot be clearly identified			
7	Electrical c	haracteristics	No change				
8	Optical characteristics		No change				
9	Reli	ability	No change				
10	Changes in environmentally hazardous substances		No change				
	Machine		No change				
11	Process Change	Method	After exhausting the air inside the aluminum bag, seal the aluminum bag.	Does not exhaust the air inside the aluminum bag, only seals the aluminum bag			
12	Specification		No change				
13	3 Label change		No change				
14	14 Management contents		No change				

## Includes Humidity Indicator Card



[Purpose of use of HIC] Judgment material for judging the presence or absence of abnormalities in aluminum packaging. [How to use] Check the discoloration state of HIC immediately after opening the aluminum.

> If there is something wrong with the aluminum packaging, the HIC display color immediately after opening will be as shown in the red frame on the right of the photo, and baking in the reel state must be carried out.

Items	Confirmation details	Conventional	JEDEC specification	Effect
HIC	Checking the moisture absorption state immediately after opening	Simple judgment by silica gel only	Humidity 5%,10% can be determined by HIC	More accurate judgement is possible
	Eco Humicator™ Cobalt & Heavy Metal FREE LEVEL         LEVEL       GV3E033B         PARTS       GV3E033B         Bake parts       60% is         NOT green       10% is         NOT green and 5%       5%         Complies with IPC/LEDEC J-STD-033B       10% is violet         Complies with IPC/LEDEC J-STD-033B       10% is violet         Good for een       10% is reen         10% is Green       5% is violet	Cobalt & Heavy Metal FREE       Cobalt & Heavy Metal FREE         LEVEL       GV3E033B         Bake parts       60% (is)         NOT green       Image: Cobalt & Heavy Metal FREE         LEVEL       2ASTA         Dake parts       60% (is)         Bake parts       10% (is)         Bake parts       10% (is)         Intitial Use: Do not put this card into a bag if 60% is violet.       Intitial Use: Do not put this card into a bag if 60% is violet.         60% : Green       60% : Green         10% : Green       10% : Green	Level 10% Output 10% Output	

If the display color of 5% has changed to a color other than green, please perform baking in the reel state at 60°C for 12 hours.

## Notation of MSL label

MSL : Moisture Sensitivity Level

I would like to unify the specifications with the following label on the aluminum bag.

#### Label example



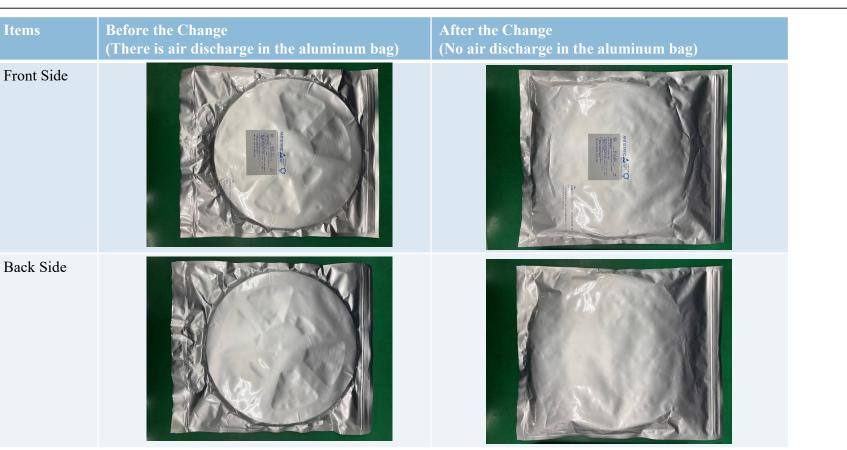
Level	Floor life (Moisture absorption life when the PI package is left in the atmosphere of 30 ° C or less and 60% RH after opening the aluminum bag.) ※
3	168hr
4	72hr
5	48hr

 $\% {\rm If}$  you exceed the floor life, please carry out the baking process described in the specifications.

MSL will be indicated according to the specifications of each PKG, so please cooperate in storage management after opening the aluminum bag.



## Abolish the air discharge in the aluminum bag



According to J-STD-033D 3.3.5.3 Moisture Barrier Bag Sealing,

in order not to deteriorate the function of the desiccant/HIC and to reduce the risk of damage to the aluminum bag on the reel outer shape, we abolish the air discharge in the aluminum bag. © 2022 ROHM Co., Ltd.

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## Reliability test results



#### [Reliability test results]

As a representative, the reliability test results of the RPI-0441E design modified product are described below.

Test item	Test conditions	N	Judgment conditions	Pn/n	Judgement
Drop test	Fall from a height of 1.5m 3 times	1 reel (1000pcs)	No bag punk	0/1(1000pcs)	ОК
Vibration test	frequency 10~55 Hz acceleration 1.5G 2hr×3acceleration (XYZ)	1 reel (1000pcs)	No reel deformation No product damage	0/1(1000pcs)	ОК

#### <Opinion>

As a result of the above reliability test, it is judged that there is no problem in the reliability due to the change of packaging specifications.



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