



# Product Change Notification

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## ■ Purpose

[2022-10-07] Sharp Corporation would like to notify customers of an update to previously announced PCN (on **2022-04-06**) concerning upcoming changes to the following photocoupler and phototriac coupler models. Depending on the model, new production materials and/or suppliers will be added for the LED Chip, Silicone resin, 1<sup>st</sup> mold resin, and 2<sup>nd</sup> mold resin. The purpose of these changes were to stabilize production to address supply shortages with existing suppliers.

The update in this PCN is to announce:

1. Depending on the Sharp model, some of the planned changes will NOT be made anymore.
2. Updates to the schedule. In particular, Sharp will be applying this running change in production from December, 2022.

These changes do not affect the device optical or electrical characteristics, dimensions, or reliability. There is no change to the Sharp part numbers.

The affected models include:

- PC354N1J000F
- PC354NJ0000F
- PC355NJ0000F
- PC357N1J000F
- PC357N2J000F
- PC357N3J000F
- PC357N4J000F
- PC357N6J000F
- PC357N7J000F
- PC357NJ0000F
- PC364NJ0000F
- PC365NJ0000F
- PC367N2J000F
- PC367NJ0000F
- PC400J00000F
- PC451J00000F
- PC452J00000F

# Product Change Notification

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- PC457L0NIP0F
- PC457L0YIP0F
- S2S3A00F
- S2S3LA0F
- S2S4A00F
- S2S4AY0F
- S2S5A00F
- S2S5FA0F

## ■ Effective Time of Change

These are running changes that will be applied starting in December, 2022.

## ■ Details

Please refer to the pages that follow for the details of the material changes.

If you have any questions concerning this notification, please contact your Socle representatives at: [Socle\\_Sales\\_NA@socle-tech.com](mailto:Socle_Sales_NA@socle-tech.com)

October 3, 2022

Issue No.

ST-EDO2210A

## SHARP Products Change Notification

SHARP SEMICONDUCTOR INNOVATION CORPORATION

Thank you very much for your continuous usage  
of our semiconductor device products.  
We would like to inform the change of photo sensor as follows.

Sales Div.



Subject	<b><u>Addition of materials for isolator device</u></b>
Applicable product category	<b>SOP 4/5 pin type Photocoupler and Photo triac coupler (36 models)</b>
Changed from	Running change is scheduled for December 2022 onward. ※ Schedule might change depending on inventory & purchase order.

In the Sharp change notice (ST-ED02204A), we announced the addition of production materials for the isolator products produced at Yongyo Ensei Electronics (Shangqiu) Co., Ltd., but there are some changes to the content as listed below.

We apologize for the sudden request, but thank you for your understanding.

### 1. Applicable models

Please refer to the attached "Detail of Model List and added materials".

Type	Series name
Transistor output	PC35*/PC36*/PC452 series
IC output	PC400/PC410L/PC457L series
Triac output	S2S* series

### 2. Detail of changes

Cancellation of the addition of the following additional production parts and review of the schedule accordingly.

- 1) IC output type (Only PC457L series) : Withdrawal of addition of LED chip.
- 2) Transister / Triac output type : Withdrawal of addition of 1st mold resin.

Please refer to the attached "Detail of Model List and added materials".

※There are no changes to the products' optical and electrical characteristics, dimension, and reliability.

※Please contact us before October 31th, 2022 for any questions or requests with regards to this change.

### 3. Reason of changes

There were differences in the characteristics of some material combinations, and some customers were concerned about the effects of multiple combinations. Currently, the shortage of materials issues are being resolved, so we will make changes to the additional content this time.

Please refer to the attached supplementary documents for details.

## 【Detail of Model List and added materials】

### 1. Transistor output

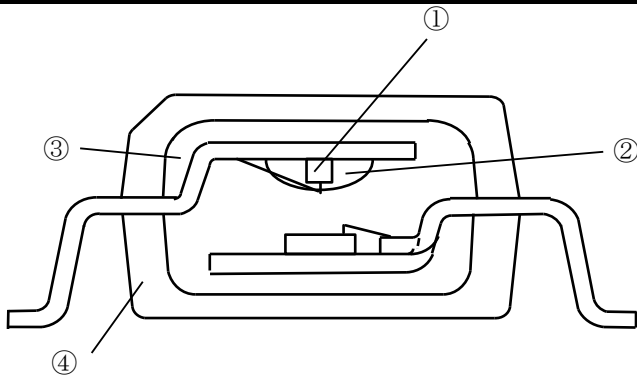
Model No.	Added materials
PC354NJ0000F	Silicone resin <del>1st mold resin</del> 2nd mold resin
PC354N1J000F	
PC355NJ0000F	
PC357NJ0000F	
PC357N1J000F	
PC357N2J000F	
PC357N3J000F	
PC357N4J000F	
PC357N5J000F	
PC357N6J000F	
PC357N7J000F	
PC357N8J000F	
PC357N9J000F	
PC357NJ0000F	
PC365NJ0000F	
PC367NJ0000F	
PC367N1J000F	
PC367N2J000F	
PC451J00000F	
PC452J00000F	

### 2. IC output

Model No.	Added materials
PC400J00000F	Silicone resin, 1st mold resin, 2nd mold resin
PC410LEYIP0F	LED(Applied), Silicone resin 1st mold resin, 2nd mold resin
PC410LENIP0F	
PC457L0NIP0F	<del>LED</del> , Silicone resin 1st mold resin, 2nd mold resin
PC457LRNIP0F	
PC457L0YIP0F	

### 3. Triac output

Model No.	Added materials
S2S3A00F	Silicone resin <del>1st mold resin</del> 2nd mold resin
S2S3AD0F	
S2S3LA0F	
S2S3ADYF	
S2S4A00F	
S2S4AY0F	
S2S4EY0F	
S2S5A00F	
S2S5FA0F	
S2S5EY0F	



- ① LED : Proven supplier, will be adopted in other models.
- ② Silicone resin : Same supplier, be adopted in other models.
- ③ 1st mold resin : Another supplier, be adopted in other models.
- ④ 2nd mold resin : Another supplier, be adopted in other models.

**SOP 4/5 pin type Photocoupler and Photo triac coupler  
Addition of materials schedule**

☆ The red part is the updated part

[Document Rev.4]

Type	Model name	4 M (Comparison sheets)	EVT sample*1 (shipping)	Performance data	DVT sample*1 (shipping)	QC process chart	Reliability data	Environment Document	Safety regulation certification*2	Warehousing plan*3 (LED chip added model)	Warehousing plan*3 (resin added model)
Transister output type	PC354	Completed	-	2022/10/7	2022/11/30	No change	Completed	Completed	2022/11/1	Not applicable	shipments from 2022/12
	PC355			2022/10/7							
	PC357			Completed							
	PC364			2022/10/7							
	PC365			2022/10/7							
	PC367			Completed							
	PC451			2022/10/7							
	PC452			Completed							
Optical IC output type	PC400	Completed	2022/10/7	Completed	2022/11/30	No change	2022/11/30	Completed	2022/11/1	Not applicable	shipments from 2022/2
	PC410L		Completed	Completed	Completed	No change	Completed	Completed	2022/11/1	Completed	shipments from 2022/2
	PC457L		Completed	Completed	Completed	No change	2022/11/11	Completed	2022/11/1	Not applicable	shipments from 2022/2
Triac output type	S2S3A	Completed	-	2022/11/15	2022/11/30	No change	2022/11/15	2022/11/15	2022/11/1	Not applicable	shipments from 2022/2
	S2S3LA										
	S2S4										
	S2S4E						2022/12/9	2022/12/9			
	S2S5A						2022/11/15	2022/11/15			
	S2S5FA										
	S2S5E						2022/11/4	2022/11/4			

The above schedule shows the possible start date of submission and provision, and to be submitted/provided in order.  
Please be aware that the schedule is subject to change without notice.  
 ※1 The date of sample shipping schedule is subject to delay due to the request quantity.  
 ※2 No change to the document of safety regulation certification. Addition of LED chip is not subjected to recertification.  
 ※3 Schedule will change depending on inventory and purchase order.

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# SHARP Products Change Notification Supplementary Document

SHARP Semiconductor Innovation Corporation

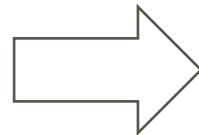
2022/10/3

# Detail of modification (Transistor output type)

Reason of withdrawing from addition of 1<sup>st</sup> mold resin

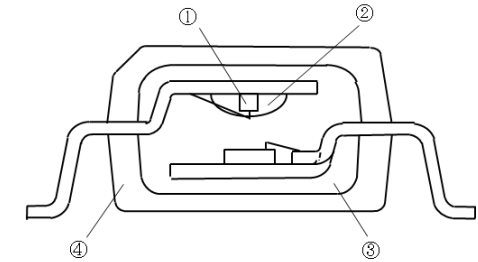
⇒Customer are worried about the effect on performance due to the multiple combinations, and also to resolve the supply insecurity issues,  
we will cancel the addition of the 1<sup>st</sup> mold resin.

Before	
Model No.	Added materials
PC354NJ0000F	Silicone resin 1st mold resin 2nd mold resin
PC354N1J0000F	
PC355NJ0000F	
PC357NJ0000F	
PC357N1J0000F	
PC357N2J0000F	
PC357N3J0000F	
PC357N4J0000F	
PC357N5J0000F	
PC357N6J0000F	
PC357N7J0000F	
PC357N8J0000F	
PC357N9J0000F	
PC357NJ0000F	
PC365NJ0000F	
PC367NJ0000F	
PC367N1J0000F	
PC367N2J0000F	
PC451J00000F	
PC452J00000F	



Withdraw addition of 1<sup>st</sup> mold resin

After	
Added materials	
Silicone resin <del>1st mold resin</del> 2nd mold resin	



- ① LED
- ② Silicone resin
- ③ 1<sup>st</sup> mold resin
- ④ 2<sup>nd</sup> mold resin

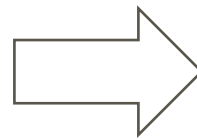
# Detail of modification (IC output type)

Reason of withdrawing from addition of LED chip (PC457L series)

⇒ We found that the value of current transfer ratio (CTR) was higher than expected when an additional light-emitting chip was used in the PC457L series.

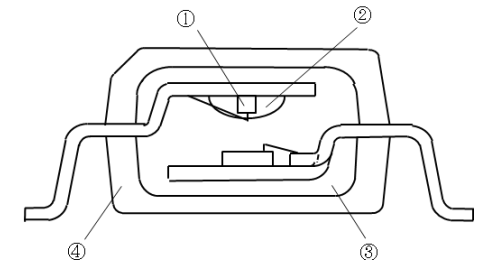
If adopted, it will be necessary to change the upper limit of the specification, and we have determined that it may cause inconvenience to the customer's design, so we will remove the addition of the light-emitting chip. For the PC400 series and PC410LE series, we have judged that the same characteristics can be secured even after the addition of materials, so we will adopt them as planned.

Before	
Model No.	Added materials
PC400J00000F	Silicone resin, 1st mold resin, 2nd mold resin
PC410LEYIP0F	LED(Applied), Silicone resin 1st mold resin, 2nd mold resin
PC410LENIP0F	LED(Applied), Silicone resin 1st mold resin, 2nd mold resin
PC457L0NIP0F	LED, Silicone resin 1st mold resin, 2nd mold resin
PC457LRNIP0F	
PC457L0YIP0F	
PC457L0YIP0F	



Withdraw addition of  
1<sup>st</sup> mold resin

After	
Model No.	Added materials
PC400J00000F	Silicone resin, 1st mold resin, 2nd mold resin
PC410LEYIP0F	LED(Applied), Silicone resin 1st mold resin, 2nd mold resin
PC410LENIP0F	LED(Applied), Silicone resin 1st mold resin, 2nd mold resin
PC457L0NIP0F	<del>LED</del> , Silicone resin 1st mold resin, 2nd mold resin
PC457LRNIP0F	
PC457L0YIP0F	
PC457L0YIP0F	



- ① LED
- ② Silicone resin
- ③ 1<sup>st</sup> mold resin
- ④ 2<sup>nd</sup> mold resin

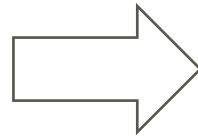


# Detail of modification (Triac output type)

Reason of withdrawing from addition of 1<sup>st</sup> mold resin

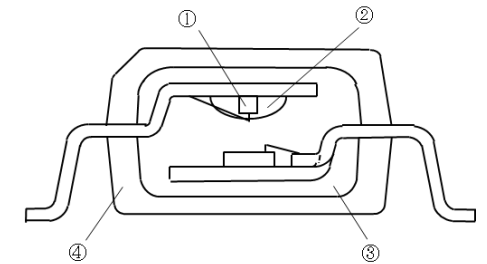
⇒ Customer are worried about the effect on performance due to the multiple combinations, and also to resolve the supply insecurity issues,  
we will cancel the addition of the 1<sup>st</sup> mold resin.

Before	
Model No.	Added materials
S2S3A00F	Silicone resin 1st mold resin 2nd mold resin
S2S3AD0F	
S2S3LA0F	
S2S3ADYF	
S2S4A00F	
S2S4AY0F	
S2S4EY0F	
S2S5A00F	
S2S5FA0F	
S2S5EY0F	



Withdraw addition of  
1<sup>st</sup> mold resin

After	
Added materials	
Silicone resin <del>1st mold resin</del> 2nd mold resin	



- ① LED
- ② Silicone resin
- ③ 1<sup>st</sup> mold resin
- ④ 2<sup>nd</sup> mold resin

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