



Dear Valued Customer

Doc. No.: 4822006  
Issue date: September 1, 2022

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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 provide your your reply by September 30, 2023

|                                |  |    |   |
|--------------------------------|--|----|---|
| Title of change                | Transition to OSAT for infrared LED and PTR sensor (bullet type)   |    |   |
| Affected product(s)            | Manufacturer part number   |    | Customer part number  |
|                                | Attachment   |    |   |
| Detailed description of change | Now  |    | After   |
|                                | 1. RSC Factory<br>2. Lead terminal Solder plating  |    | 1. Subcontracting (Thailand plant)<br>2. Lead terminal Sn plating |
| Reason for change              | Entrust manufacturing by overseas OSAT manufacturers (Lite-On) to ensure stable supply in order to cope with aging equipment   |    |   |
| Anticipated impact on quality  | <ul style="list-style-type: none"> <li>·As a manufacturing factory, Lite-On has a shipping record of more than 10 years.</li> <li>·There is no change in the electrical and optical characteristics guarantee item standards.</li> </ul> |    |   |
| Identification of change       | Lot NO. management   |    |   |
| Planned first ship date :      | Shipped at any time after approval   |    | Sample available schedule : Within 4 weeks from request           |
| Attachments (data, report)     | yes  | 4M | 4822006-2_4ME RIBI 4822006-3_RIBI                                 |
| Comments                       | There are no changes to the product specifications. ROHM responsibly guarantees. Samples are prepared in advance with representative models. Individual models will be supported separately.   |    |   |

|   |   |            |  |
|---|---|------------|--|
|   |   | Reply date |  |
| Customer reply                                | <input type="checkbox"/> 1. Approved. <input type="checkbox"/> 2. Accepted with conditions. <input type="checkbox"/> 3. Rejected. |            |  |
| Condition for approval / reason for rejection |   |            |  |
| Comments                                      |   |            |  |
| Customer company name                         |   |            |  |
| Customer signature                            |   | Department |  |
| Customer signature                            |   | Department |  |

# Changing Point of 4M

| Changing Point of 4M  |           | Before change   | After change                              | Remarks   |
|-----------------------|-----------|---|---|---|
| MAN                   |           | Local staff at Tianjin factory (RCHM)                   | Local staff at Thailand factory (Lite-On) | Educated and trained staff                                |
| Method                |           | No change   |   | -   |
| Machine               |           | Tianjin factory (ROHM)                                  | Thailand factory (Lite-On)                | -   |
| <p>Main Materials</p> | ①Die      | No change   |   | -   |
|                       | ②Ag paste | No change in main component material                    |   | -   |
|                       | ③Au wire  | No change in main component material                    |   | -   |
|                       | ④ Resin   | No change in main component material<br>No shape change |   | -   |
|                       | ⑤Frame    | No change in main component material<br>No shape change |   |   |
|                       | ⑤plating  | Solder plating (Sn-Ag-Cu)                               | Sn plating                                | The lead terminal will be changed from shiny to nonshiny. |

| Internal PN   | Public (External) PN |
|---------------|----------------------|
| RPR-220       | RPR-220              |
| RPR-220A      | RPR-220A             |
| RPR-220AC14   | RPR-220AC14          |
| RPR-220AHC14  | RPR-220AHC14         |
| RPR-220C1N    | RPR-220C1N           |
| RPR-220S024   | RPR-220S024          |
| RPR-220UC30N  | RPR-220UC30N         |
| RPR-220UC30NC | RPR-220UC30NC        |
| RPR-359F      | RPR-359F             |
| RPR-359FA     | RPR-359FA            |
| RPR-359FB     | RPR-359FB            |
| RPR-359FC     | RPR-359FC            |
| RPR-359FD     | RPR-359FD            |
| RPT-22PB3FFK  | RPT-22PB3FFK         |
| RPT-22PB3FFL  | RPT-22PB3FFL         |
| RPT-22PB3FFM  | RPT-22PB3FFM         |
| RPT-22PB3FFN  | RPT-22PB3FFN         |
| RPT-22PB3FK   | RPT-22PB3FK          |
| RPT-22PB3FL   | RPT-22PB3FL          |
| RPT-22PB3FM   | RPT-22PB3FM          |
| RPT-22PB3FN   | RPT-22PB3FN          |
| RPT-22PT3FFL  | RPT-22PT3FFL         |
| RPT-22PT3FL   | RPT-22PT3FL          |
| RPT-22STC403F | RPT-22STC403F        |
| RPT-34PB3F    | RPT-34PB3F           |
| RPT-34PB3FK   | RPT-34PB3FK          |
| RPT-34PB3FL   | RPT-34PB3FL          |
| RPT-34PB3FM   | RPT-34PB3FM          |
| RPT-34PB3FN   | RPT-34PB3FN          |
| RPT-34PB3FP   | RPT-34PB3FP          |
| RPT-37PB3FK   | RPT-37PB3FK          |
| RPT-37PB3FL   | RPT-37PB3FL          |
| RPT-37PB3FM   | RPT-37PB3FM          |
| RPT-37PB3FN   | RPT-37PB3FN          |
| RPT-38PB3FJ   | RPT-38PB3FJ          |
| RPT-38PB3FK   | RPT-38PB3FK          |
| RPT-38PB3FL   | RPT-38PB3FL          |
| RPT-38PB3FM   | RPT-38PB3FM          |
| RPT-38PB3FN   | RPT-38PB3FN          |
| RPT-38PT3FK   | RPT-38PT3FK          |
| RPT-38PT3FL   | RPT-38PT3FL          |
| RPT-38PT3FM   | RPT-38PT3FM          |
| RPT-38PT3FN   | RPT-38PT3FN          |
| RPT-38PT3FP   | RPT-38PT3FP          |
| SIR-22ST3FFL  | SIR-22ST3FFL         |
| SIR-22ST3FFM  | SIR-22ST3FFM         |
| SIR-22ST3FFN  | SIR-22ST3FFN         |
| SIR-22ST3FFP  | SIR-22ST3FFP         |
| SIR-22ST3FL   | SIR-22ST3FL          |

|               |               |
|---------------|---------------|
| SIR-22ST3FM   | SIR-22ST3FM   |
| SIR-22ST3FN   | SIR-22ST3FN   |
| SIR-22ST3FP   | SIR-22ST3FP   |
| SIR-22ST3FW1D | SIR-22ST3FW1D |
| SIR-22UT3FA   | SIR-22UT3FA   |
| SIR-22UT3FFC  | SIR-22UT3FFC  |
| SIR-341ST3FL  | SIR-341ST3FL  |
| SIR-341ST3FM  | SIR-341ST3FM  |
| SIR-341ST3FN  | SIR-341ST3FN  |
| SIR-341ST3FP  | SIR-341ST3FP  |
| SIR-341STA49L | SIR-341STA49L |
| SIR-341STA49M | SIR-341STA49M |
| SIR-341STA49N | SIR-341STA49N |
| SIR-341STA49P | SIR-341STA49P |
| SIR-34ST3FJ   | SIR-34ST3FJ   |
| SIR-34ST3FK   | SIR-34ST3FK   |
| SIR-34ST3FL   | SIR-34ST3FL   |
| SIR-34ST3FM   | SIR-34ST3FM   |
| SIR-34ST3FN   | SIR-34ST3FN   |
| SIR-34STA49   | SIR-34STA49   |
| SIR-34STA49J  | SIR-34STA49J  |
| SIR-34STA49K  | SIR-34STA49K  |
| SIR-34STA49L  | SIR-34STA49L  |
| SIR-34STA49M  | SIR-34STA49M  |
| SIR-381SB3FK  | SIR-381SB3FK  |
| SIR-381SB3FL  | SIR-381SB3FL  |
| SIR-381SB3FM  | SIR-381SB3FM  |
| SIR-381SB3FN  | SIR-381SB3FN  |
| SIR-563ST3FM  | SIR-563ST3FM  |
| SIR-563ST3FN  | SIR-563ST3FN  |
| SIR-563ST3FP  | SIR-563ST3FP  |
| SIR-563ST3FQ  | SIR-563ST3FQ  |
| SIR-563STT32N | SIR-563STT32N |
| SIR-568ST3FP  | SIR-568ST3FP  |
| SIR-568ST3FQ  | SIR-568ST3FQ  |
| SIR-568ST3FR  | SIR-568ST3FR  |
| SIR-568ST3FS  | SIR-568ST3FS  |
| SIR-56ST3FL   | SIR-56ST3FL   |
| SIR-56ST3FM   | SIR-56ST3FM   |
| SIR-56ST3FN   | SIR-56ST3FN   |
| SIR-56ST3FP   | SIR-56ST3FP   |

# Reliability Test Results



## Infrared LED

### 1.試験結果 (TEST RESULT)

| 試験項目<br>(TEST ITEM)                      | 参考規格<br>(Reference STD) | 試験条件<br>(TEST CONDITION)  | n [PCS]<br>(Sample QTY.) | P n<br>(NG QTY.) |
|--|-------------------------|---|--------------------------|------------------|
| はんだ耐熱<br>Solder heat resistance          | JESD22-B106D            | 260±5℃のはんだ槽に端子径元1.6mm<br>まで10±1sec 1回浸漬。<br>Dip 1 times with 10±1sec up to 1.6mm of the bottom plane of resin in eutectic solder tub of 260±5℃. | 22                       | 0                |
| 温度サイクル<br>Temperature cycle              | JESD22-A104E            | Tstg MIN (30min) ~ Tstg MAX (30min) 100cycle  | 22                       | 0                |
| 高温放置<br>High temperature storage         | JESD22-A103E            | Ta = Tstg MAX 1000hrs   | 22                       | 0                |
| 高温高湿放置<br>High temperature High humidity | JEITA ED-4701<br>B-121  | Ta = 85℃ 85%RH 240hrs   | 22                       | 0                |
| 低温放置<br>Low temperature storage          | JESD22-A119A            | Ta = Tstg MIN 1000hrs   | 22                       | 0                |
| 動作寿命<br>Load life                        | JESD22-A108D            | I <sub>p</sub> = 20mA Ta = 25℃ 1000hrs  | 22                       | 0                |

※SIR-34 series

## PTR Sensor

### 1.試験結果 (TEST RESULT)

| 試験項目<br>(TEST ITEM)                      | 参考規格<br>(Reference STD) | 試験条件<br>(TEST CONDITION)  | n [PCS]<br>(Sample QTY.) | P n<br>(NG QTY.) |
|--|-------------------------|---|--------------------------|------------------|
| はんだ耐熱<br>Solder heat resistance          | JESD22-B106D            | 260±5℃のはんだ槽に端子径元1.6mmまで<br>10±1sec 1回浸漬。<br>Dip 1 times with 10±1sec up to 1.6mm of the bottom plane of resin in eutectic solder tub of 260±5℃. | 22                       | 0                |
| 端子折り曲げ強度<br>Load bend test               | JESD22-B105D            | 荷重 0.98N 0°~90°~0°~-90°~0°<br>Load 0.98N 0°~90°~0°~-90°~0°  | 22                       | 0                |
| 温度サイクル<br>Temperature cycle              | JESD22-A104E            | Tstg MIN (30min) ~ Tstg MAX (30min) 20cycle   | 22                       | 0                |
| 高温放置<br>High temperature storage         | JESD22-A103E            | Ta = Tstg MAX 1000hrs   | 22                       | 0                |
| 高温高湿放置<br>High temperature High humidity | JEITA ED-4701<br>B-121  | Ta = 85℃ 85%RH 240hrs   | 22                       | 0                |
| 低温放置<br>Low temperature storage          | JESD22-A119A            | Ta = Tstg MIN 1000hrs   | 22                       | 0                |
| 動作寿命<br>Load life                        | JESD22-A108D            | V <sub>CE</sub> = 5V Ta = 25℃ 1000hrs   | 22                       | 0                |

※RPT-34series

### 2.測定項目及び故障判定基準 (FAILURE CRITERIA)

| 測定項目 (ITEM)              | 測定条件<br>(CONDITION)   | 故障判定規準 (CRITERIA)                                       |
|--------------------------|-----------------------|---|
| 光出力<br>Optical output    | I <sub>f</sub> = 50mA | 初期値 0.7<br>Initial value × 0.7                          |
| 順方向電圧<br>Forward voltage | I <sub>f</sub> = 50mA | U.S.L × 1.2   |
| 逆方向電流<br>Reverse current | V <sub>R</sub> = 3V   | U.S.L × 2   |
| 外観<br>appearance         | 目視<br>Visual check    | 肉眼と比較して外観に異常無きこと<br>No outstanding change in appearance |
| 端子折り曲げ<br>Lead bend      | 目視<br>Visual check    | リード部線が断線しないこと<br>There shall not be lead rupture.       |

### 2.測定項目及び故障判定基準 (FAILURE CRITERIA)

| 測定項目 (ITEM)          | 測定条件<br>(CONDITION)                      | 故障判定規準 (CRITERIA)                                       |
|----------------------|--|---|
| 光電流<br>Light current | V <sub>CE</sub> = 5V<br>E = 500Lux       | 初期値 0.7<br>Initial value × 0.7                          |
| 暗電流<br>Dark current  | V <sub>CE</sub> = 10V (暗箱)<br>(dark box) | U.S.L × 2   |
| 外観<br>appearance     | 目視<br>Visual check                       | 肉眼と比較して外観に異常無きこと<br>No outstanding change in appearance |
| 端子折り曲げ<br>Lead bend  | 目視<br>Visual check                       | リード部線が断線しないこと<br>There shall not be lead rupture.       |