

| Product Change Notification<br>(Notification – P2006029-DIG)  |  |  |  |  |  |  |  |
|---|--|--|--|--|--|--|--|
| (RUINCAIION - 1 2000023-DIC)<br>(BL202001068)<br>June 15, 2020  |  |  |  |  |  |  |  |
| То:   |  |  |  |  |  |  |  |
| 10:   | Our Valued Digi-Key Electronics Customer   |  |  |  |  |  |  |
| Overview:   | The purpose of this notification is to communicate a product change of select Renesas Electronics America, Inc. (REA) devices.   |  |  |  |  |  |  |
|   | <ul> <li>For select Thyristor &amp; Triac devices in the TO-220F package, this notification announces the following changes (see the Appendix for details).</li> <li>1. Package change from TO-220F to TO-220FPA</li> <li>2. Assembly &amp; Test Site change from Micro Electronics, Ltd. (China) to ASE, Inc. (Weihai, China)</li> <li>3. Terminal Finish change from Sn-Cu dipping to Sn plating.</li> </ul>   |  |  |  |  |  |  |
|   | There is a change to the part number. There is no change to electrical characteristics or product reliability.   |  |  |  |  |  |  |
| Affected Products:  | A review of our records indicates the list of products in the Appendix may affect your company.  |  |  |  |  |  |  |
|   | Part numbers given in this list are for active part numbers in REA database at the time of this notification.  |  |  |  |  |  |  |
| Key Dates:  | Shipments from REA of the replacement device begins. September 1, 2020   |  |  |  |  |  |  |
| Response:   | No response is required. REA will consider this notification approved 30 days after its issue. If you anticipate volumes beyond your regular rate prior to the transition date, please contact your REA sales representative with a forecast of your requirements.   |  |  |  |  |  |  |
|   | If the customer provides a timely acknowledgement, the customer shall have 90 days (an additional 60 days) from<br>the date of receipt of this notification in which to make any objections to the notification. If the customer does not<br>make any objections to this notification within 90 days of the receipt of the notification, then Renesas will consider<br>the notification as approved. If customer cannot accept the notification, then the customer must provide Renesas<br>with a last time buy demand and purchase order. |  |  |  |  |  |  |
| Please contact your REA sales representative for any questions or comments. Thank you for your attention. |  |  |  |  |  |  |  |
| Sincerely,  |  |  |  |  |  |  |  |
| Renesas Electronics America, Inc.   |  |  |  |  |  |  |  |

# RENESAS

## Appendix A: Digi-Key Affected Part List

| Booking Part Number | Replacement PN     | Booking Part Number | Replacement PN     |
|---------------------|--------------------|---------------------|--------------------|
| BCR3PM-12LG#B00     | BCR3FM-12LB#BG0    | BCR12PM-12LAA8#B00  | BCR12FM-12LBA8#BH0 |
| BCR3PM-14LG#B00     | BCR3FM-14LB#BG0    | BCR12PM-12LG#B00    | BCR12FM-12LB#BG0   |
| BCR5PM-12LG#B00     | BCR5FM-12LB#BG0    | BCR12PM-12LC#B00    | BCR12FM-12LC#BG0   |
| BCR5PM-14LG#B00     | BCR5FM-14LB#BG0    | BCR12PM-12LD#B00    | BCR12FM-12LC#BG0   |
| BCR5PM-14LD#B00     | BCR5FM-14LC#BG0    | BCR12PM-14LG#B00    | BCR12FM-14LB#BG0   |
| BCR5PM-14LD-A8#B00  | BCR5FM-14LC-A8#BG0 | BCR12PM-14LJ#B00    | BCR12FM-14LJ#BG0   |
| BCR5PM-14LJ#B00     | BCR5FM-14LJ#BG0    | BCR16PM-12LA#B00    | BCR16FM-12LB#BH0   |
| BCR8PM-12LA#B00     | BCR8FM-12LB#BH0    | BCR16PM-12LG#B00    | BCR16FM-12LB#BG0   |
| BCR8PM-12LB#B01     | BCR8FM-12LB#BH0    | BCR16PM-12LC#B00    | BCR16FM-12LC#BG0   |
| BCR8PM-12LE#B00     | BCR8FM-12LB#BG0    | BCR16PM-12LD#B00    | BCR16FM-12LC#BG0   |
| BCR8PM-12LG#B00     | BCR8FM-12LB#BG0    | BCR16PM-14LG#B00    | BCR16FM-14LB#BG0   |
| BCR8PM-12LD#B00     | BCR8FM-12LC#BG0    | BCR16PM-14LJ#B00    | BCR16FM-14LJ#BH0   |
| BCR8PM-14LE#B00     | BCR8FM-14LB#BG0    | BCR16PM-16LH#B00    | BCR16FM-16LH#BG0   |
| BCR8PM-14LG#B00     | BCR8FM-14LB#BG0    | BCR16PM-16LH-1#B00  | BCR16FM-16LH-1#BG0 |
| BCR8PM-14LJ#B00     | BCR8FM-14LJ#BG0    | BCR16PM-16LH-1#COA  | BCR16FM-16LH-1#BG0 |
| BCR8PM-16LG#B00     | BCR8FM-16LB#BG0    | BCR20PM-14LJ#B00    | BCR20FM-14LJ#BH0   |
| BCR8PM-20LA#B00     | BCR8FM-20LA#BH0    | BCR25PM-14LJ#B00    | BCR25FM-14LJ#BH0   |
| BCR10PM-12LG#B00    | BCR10FM-12LB#BG0   | CR3PM-12G#B00       | CR3CS-12A-A1#BH0   |
| BCR10PM-12LD#B00    | BCR10FM-12LC#BG0   | CR6PM-12G#B00       | CR6FM-12B#BG0      |
| BCR10PM-14LJ#B00    | BCR10FM-14LJ#BG0   | CR8PM-12B#B00       | CR8FM-12B#BH0      |
|                     | BCR12FM-12LB#BH0   | CR12PM-12B#B00      | CR12FM-12B#BH0     |



## Appendix B: Change Details

| ltems                                       |                          |   | Cur   | rent  | New                             |                       |  |  |
|---|--------------------------|---|---|---|---------------------------------|-----------------------|--|--|
| Package Name                                |                          |   | то-2  | 220F  | TO-220FPA                       |                       |  |  |
| Renesas PKG Code PRSS0003AA-A PRSS0003A P-A |                          |   |   | 003A P-A  |                                 |                       |  |  |
| Production                                  | Waf                      | er Fab  | No Change (Renesas Semiconductor Manufacturing Co., Ltd. (Japan)) |   |                                 |                       |  |  |
| Sites                                       |                          | embly<br>Test   | MICRO ELECTRONICS LTD.<br>(China) ASE (Weihai), Inc.<br>(China)   |   |                                 |                       |  |  |
|   | Die                      |   |   | No Cl   | nange                           |                       |  |  |
|   | ngs &<br>cteristics      |   |   | Same o  | r Higher                        |                       |  |  |
| Reli  | ability                  |   |   | Same o  | r Higher                        |                       |  |  |
|   | D                        | ie  |   | No Cl   | nange                           |                       |  |  |
|   | Lead                     | Frame   |   | Cu /  | Alloy                           |                       |  |  |
|   | Inner                    | T1(K)   | AI  |   |                                 |                       |  |  |
| Materials                                   | Wire                     | G   | AI  |   |                                 |                       |  |  |
|   | Mold                     |   | Epoxy Resin (UL94 V-0)  |   |                                 |                       |  |  |
|   | Die Attach               |   | High Melting Point Solder   |   |                                 |                       |  |  |
| Terminal<br>Finish                          |                          | Sn-Cu   | Dipping   | Sn Plating  |                                 |                       |  |  |
| RoHS  |                          | RoHS Compliant<br>(Containing Pb exempted from EU RoHS)           |   |   |                                 |                       |  |  |
| UL1557                                      |                          | UL Recognized<br>UL File No.E223904                               |   | Not Applied to UL<br>(All the products passed the inspection<br>equivalent to the UL standard.) |                                 |                       |  |  |
| Lead Forming Type                           |                          | Straight, A8, AS, AR, A5, A6,<br>AA, AK, AM, AN, AQ, AT, AV, & JL |   | Straight, A8, AS, & AR  |                                 |                       |  |  |
|   |                          |   | Straight Lead Type  | Lead Forming Type<br>(and spec#C0G)   | Straight Lead Type              | Lead Forming Type     |  |  |
|   | Standard<br>Min. Packing |   | Plastic Bag<br>100 pcs. / bag                                     | Tube<br>50 pcs./ tube   | Tube<br>50 pcs./ tube           | Tube<br>50 pcs./ tube |  |  |
| Packing                                     | Qty ,                    | / box   | 5 bags / box  | 10 tubes / box  | 50 tubes / box                  | 20 tubes / box        |  |  |
|   |                          | Size<br>V×H)  | $123 \times 123 \times 89$ (mm)                                   | 573 $	imes$ 116 $	imes$ 79 (mm)   | 575 $	imes$ 188 $	imes$ 94 (mm) | 577×169×107 (mm)      |  |  |



| Appendix C: | <b>Appearance Details</b> | (Excluding CR3PM-12G) |
|-------------|---------------------------|-----------------------|
|-------------|---------------------------|-----------------------|

| ltems                   | Current   | New   |  |  |
|-------------------------|---|---|--|--|
| Package Name            | TO-220F   | TO-220FPA                                     |  |  |
| Renesas PKG Code        | PRSS0003AA-A  | PRSS0003A P-A                                 |  |  |
| Appearance<br>(Example) | G       A         G       A         BCR16PM       B         J2L0302       B         T1 T2 G       K)(A) | T1 T<br>(K)(                                  | T2 G<br>A)                                     |  |
| Pin Assignment          | No Cl   | hange   |  |  |
|                         |   | #BG0<br>#BG*<br>#CG*                          | #B <mark>H</mark> 0<br>#BH*<br>#CH*            |  |
| Marking<br>(Example)    | G A<br>BCR8PM<br>14L YMTT   | Factory Code (K)<br>B K<br>BCR8FM<br>14L YMTT | Factory Code (K)<br>B BK<br>BCR8FM<br>14L YMTT |  |



## Appendix D: Package Dimensions Details - Straight Lead Type (Excluding CR3PM-12G)

| ltems                            |      | Current      |      |      | New           |      |
|----------------------------------|------|--------------|------|------|---------------|------|
| Package Name                     |      | TO-220F      |      |      | TO-220FPA     |      |
| Renesas PKG Code                 |      | PRSS0003AA-A |      |      | PRSS0003A P-A |      |
| Package Dimensions<br>(Unit: mm) |      |              |      |      |               |      |
| Ref.                             | MIN  | NOM          | MAX  | MIN  | NOM           | MAX  |
| А                                | -    | 4.5          | -    | -    | 4.5           | -    |
| A1                               | -    | 2.6          | -    | -    | 2.6           | -    |
| b                                |      | 0.8          | -    | -    | 0.69          | -    |
| b1                               | -    | 1.3          | -    | -    | 1.14          | -    |
| С                                | -    | 0.5          | -    | -    | 0.6           | -    |
| c1                               | -    | 2.8          | -    | -    | 2.7           | -    |
| D                                | -    | 17           | -    | -    | 15            | -    |
| E                                | -    | -            | 10.5 | -    |               | 10.3 |
| е                                | -    | 2.54         | -    | -    | 2.54          | -    |
| L                                | 13.5 | -            | -    | 12.5 | -             | -    |
| L1                               | -    | 3.6          | -    | -    | 1.95          | -    |
| L2                               | -    | 12           | -    | -    | 12            | -    |
| φP                               | 3.0  | 3.2          | 3.4  | 3.0  | 3.2           | 3.4  |



## Appendix D: Package Dimensions Details (cont.) - Straight Lead Type (Excluding CR3PM-12G)

| ltems            |              | Current    |     |               | New           |                                    |
|------------------|--------------|------------|-----|---------------|---------------|------------------------------------|
| Package Name     | TO-220F      |            |     | TO-220FPA     |               |                                    |
| Renesas PKG Code | PRSS0003AA-A |            |     | PRSS0003A P-A |               |                                    |
|                  | A8           | AS         | AR  | A8            | AS            | AR                                 |
|                  |              |            | L.4 | 9'9L<br>4.5   |               |                                    |
|                  | A5           | A6         | AA  | A5            | A6            | AA                                 |
|                  |              | 5.0 + 14.7 |     | Not Supported | Not Supported | Not Supported                      |
|                  | AK           | AM         | AN  | AK            | AM            | AN                                 |
| Lead Forming     | 5.0 × 14.7   |            |     | Not Supported | Not Supported | Not Supported<br>(Recommend<br>AS) |
|                  | AQ           | AT         | AV  | ÂQ            | AT            | ÁV                                 |
|                  | 5.0 415.5    |            |     | Not Supported | Not Supported | Not Supported                      |
|                  | JL           |            |     | JL            |               |                                    |
|                  |              |            |     | Not Supported |               |                                    |