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# RENESAS SEMICONDUCTOR RELIABILITY REPORT

APPLICATION: Standard

SERIES: BCR16CS-16LB-LD1

DEVICE: BCR16CS-16LB#B00

Quality Assurance Div.  
Renesas Electronics Corporation

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# 1.RELIABILITY TEST

| ITEM                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | TEST CONDITION                                                              | Test Results      |                   |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|-------------------|-------------------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                             | NUMBER OF SAMPLES | NUMBER OF FAILURE |
| Soldering Heat                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Reflow(250°Cmax, 230°C×30s, 1time)                                          | 22                | 0                 |
| Solderability                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 245°C, 5s (Solder wetting area 95% or more)                                 | 22                | 0                 |
| High Temperature Bias                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Ta=150°C, V <sub>DRM</sub> =Maximum Rating (AC-peak), 1,000h                | 22                | 0                 |
| Continuous Operation                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Tj=150°C, I <sub>T(RMS)</sub> =Maximum Rating, 1,000h                       | 22                | 0                 |
| High Temperature Storage Life                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Ta=150°C, 1,000h                                                            | 22                | 0                 |
| Temperature Humidity Storage                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Ta=85°C, 85%RH, 1,000h                                                      | 22                | 0                 |
| Temperature Cycle                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Ta=-40°C to +150°C, 200cycles                                               | 22                | 0                 |
| Electrostatic-Discharge(ESD)HBM                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | C=100pF, R=1.5k ohm, ±1,000V                                                | 3                 | 0                 |
| Estimated failure rate                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Estimated failure rate : 10Fit or less<br>•Tj= 55°C •Ea = 0.7eV •C.L. = 60% |                   |                   |
| Reliability test results may include data from family representative products.<br><br><Judgement criteria><br>Electrical characteristics described in the delivery specification.<br>(Solderability test is excluded.)<br>I <sub>DRM</sub> , V <sub>TM</sub> , V <sub>FGT1</sub> , V <sub>RGT1</sub> , V <sub>RGT3</sub> , I <sub>FGT1</sub> , I <sub>RGT1</sub> , I <sub>RGT3</sub><br>*However, I <sub>FGT1</sub> , I <sub>RGT1</sub> , I <sub>RGT3</sub> is I <sub>GT</sub> item free judgment. |                                                                             |                   |                   |