

Report APR-22-H0019-A
Date: Feb. 14, 2023

RENESAS SEMICONDUCTOR RELIABILITY REPORT

SERIES: RAA3064003GFP

DEVICE: RAA3064003GFP#AA0
RAA3064003GFP#BA0
RAA3064003GFP#HA0

APPLICATION: Standard

Quality Assurance Div.
Renesas Electronics Corporation

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Reliability test result

| Test Items | Reference | Test Conditions | Results Reject/Size |
|--------------------------------------|------------------------|--|------------------------|
| High Temperature Operating Life | JESD22-A108 | T _j = 125 °C, V _{cc} max, 1000 h | 0/22 |
| High Temperature Storage Life | JESD22-A103 | T _a = 150 °C, 1000 h | 0/22 |
| Temperature Humidity Bias (THB) | JESD22-A101 | T _a = 85 °C, 85% RH, V _{cc} max, 1000 h | 0/22 |
| Temperature Cycling | JESD22-A104 | T _a = -65 °C to +150 °C, 200 cycles | 0/22 |
| Resistance to Soldering Heat | JESD22-A113, J-STD-020 | Bake: 125 °C, 24 h Moisture Soak: 30 °C 70% RH, 192h (JEDEC-MSL3 Equivalent) Reflow: 260 °C peak, 255 °C 30 s, 3 times | 0/22 |
| Solderability | J-STD-002 | 245 °C, 5 s 95% solder coverage minimum | 0/5 |
| Electrostatic discharge (HBM Method) | JS-001 | C = 100 pF, R = 1.5 kΩ, ±1000 V | 0/3 |
| Electrostatic discharge (CDM Method) | JESD22-C101 | ±500 V | 0/3 |
| Latch-up (I-Test) | JESD78 | ±100 mA | 0/3 |
| Estimated Failure Rate | - | 10 FIT or less Prerequisites: T _a = 55 °C, C.L. = 60% | |

Reliability test results may include data from family representative products. MSL Preconditioning was performed prior to Temperature Humidity Bias and Temperature Cycling.

The Criteria shall follow the electrical characteristics in Specifications, except for Solderability.

Preconditioning Details: Bake (125 °C, 24 h) -> Moisture Soak (30 °C 70% RH, 192 h) -> Reflow (260 °C peak, 3 times)