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RENESAS SEMICONDUCTOR RELIABILITY REPORT

SERIES: RAA788000

DEVICE: RAA788000GSP#HA0

APPLICATION: Standard

Quality Assurance Div.
Renesas Electronics Corporation

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Reliability test result

| Test Items | Reference | Test Conditions | Results | | |
|--------------------------------------|------------------------|---|---------|-------------------|--------|
| | | | Lot | Total Sample Size | Reject |
| High Temperature Operating Life | JESD22-A108 | T _j = 125 °C, V _{cc} max, 1000 h | 3 | 231 | 0 |
| High Temperature Storage Life | JESD22-A103 | T _a = 150 °C, 1000 h | 3 | 75 | 0 |
| Temperature Humidity Bias (HAST) | JESD22-A110 | T _a = 110 °C, 85% RH, V _{cc} max, 264 h | 3 | 75 | 0 |
| Temperature Cycling | JESD22-A104 | T _a = -55 °C to +125 °C, 700 cycles | 3 | 75 | 0 |
| Resistance to Soldering Heat | JESD22-A113, J-STD-020 | Bake: 125 °C, 24 h Moisture Soak: 85 °C 85% RH, 168 h (MSL1) Reflow: 260 °C peak, 255 °C 30s ,3 times | 2 | 50 | 0 |
| Solderability | J-STD-002 | 245 °C, 5 s 95% solder coverage minimum | 3 | 15 | 0 |
| Electrostatic discharge (HBM Method) | JS-001 | C = 100 pF, R = 1.5 kΩ, ±2000 V | 1 | 3 | 0 |
| Electrostatic discharge (CDM Method) | JESD22-C101 | ±750 V | 1 | 3 | 0 |
| Latch-up (I-Test) | JESD78 | ±100 mA | 1 | 3 | 0 |
| 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 (85 °C 85% RH, 168 h) -> Reflow (260 °C peak, 3 times)