



Report: APR-21-H0661-A
Date: 28/Feb./2023

RENESAS SEMICONDUCTOR RELIABILITY REPORT

SERIES: PS2711-1

DEVICE: PS2711-1-A
PS2711-1-F3-A
PS2711-1-V-A
PS2711-1-V-F3-A

APPLICATION: Standard

Quality Assurance Division
Renesas Electronics Corporation

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Reliability test result

| Test Items | Reference | Test Conditions | Results Reject/Size |
|---|------------------------|---|------------------------|
| High Temperature Storage Life | JESD22-A103 | Ta=150°C, t=1000h | 0/22 |
| Temperature Humidity Bias (HAST) | JESD22-A110 | Ta=130°C, RH=85%, VCE=40V, t=96h | 0/20 |
| High Temperature Operating Life | JESD22-A108 | Ta=100°C, IF=Maximum current within Diode Power Dissipation rating, t=1000h | 0/20 |
| Unbiased Temperature Humidity (Unbiased HAST) | JESD22-A118 | Ta=130°C, RH=85%, t=96h | 0/22 |
| Temperature Cycling | JESD22-A104 | -40°C~125°C, 850cycles | 0/22 |
| Electrostatic discharge (HBM Method) | JS-001 | C=100pF, 1.5kΩ, 2000V | 0/5 |
| Electrostatic discharge (CDM Method) | JESD22-C101 | 500V | 0/5 |
| Solderability | J-STD-002 | 245°C,5s Wet area 95% or more | 0/22 |
| Resistance to Soldering Heat | JESD22-A113, J-STD-020 | Bake: 125°C, 24h Moisture Soak:85°C85%RH, 168h(MSL=1) Reflow:260°Cmax, 255°Cx30s, 3times) | 0/22 |
| Estimated Failure Rate | - | Estimated failure rate: 10Fit Ta= 55°C, Ea=0.7eV, C.L.=60% | |

MSL Preconditioning was performed prior to Temperature humidity bias, Unbiased Temperature Humidity and Temperature cycling.

Preconditioning Details: 125°C,24h→85°C,85%RH,168h→Reflow260°Cmax, 255°Cx30s,3times)

Reliability test results may include data from family representative products.

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

However, ΔCTR shall be the initial value ± 50%.