

Report No. APR-21-H0748-B Date: 08/Apr./2024

## RENESAS SEMICONDUCTOR RELIABILITY REPORT

SERIES: PS9324L

DEVICE: PS9324L-AX

PS9324L-E3-AX PS9324L-V-AX PS9324L-V-E3-AX

APPLICATION: Standard

Quality Assurance Division Renesas Electronics Corporation

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(Rev.5.0-2 October 2020)

| Test Items  | Reference                 | Test Conditions  | Results<br>Reject/Size |
|---|---------------------------|--|------------------------|
| High Temperature Storage<br>Life                    | JESD22-A103               | Ta=125°C, t=1000h  | 0/22                   |
| Temperature Humidity Bias (HAST)                    | JESD22-A110               | Ta=130°C, RH=85%, VCC=7V, t=96h  | 0/22                   |
| High Temperature<br>Operating Life                  | JESD22-A108               | Ta=110°C, IF=Maximum current within Diode Power Dissipation rating, t=1000h                      | 0/22                   |
| Unbiased Temperature<br>Humidity<br>(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                    |
| Solderability                                       | J-STD-002                 | 245°C,5s Wet area 95% or more  | 0/22                   |
| Resistance to Soldering<br>Heat                     | JESD22-A113,<br>J-STD-020 | Bake: 125°C, 24h<br>Moisture Soak: 85°C85%RH, 168h(MSL=1)<br>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→Reflow (260°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,  $\Delta$ IFHL/LH shall be the initial value +100%.

Note: PC-APW-A016A/J,E compliant