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28/Feb./2023

RENESAS SEMICONDUCTOR RELIABILITY REPORT

SERIES: PS9313L

DEVICE: PS9313L-AX
PS9313L-E3-AX
PS9313L-V-AX
PS9313L-V-E3-AX

APPLICATION: Standard

Quality Assurance Division
Renesas Electronics Corporation

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Reliability test result

PS9313L

Test Items	Reference	Test Conditions	Results Reject/Size
High Temperature Storage Life	JESD22-A103	Ta=125°C, t=1000h	0/22
Low Temperature Storage Life	JESD22-A119	Ta=-55°C, t=1000h	0/22
Temperature Humidity Bias (HAST)	JESD22-A110	Ta=130°C, RH=85%, VCC=25V, t=96h	0/20
High Temperature Operating Life	JESD22-A108	Ta=110°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
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, ΔIFHL shall be the initial value ± 50%.

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