



Report: APR-21-H0651  
Date: 20/Dec./2021

# RENESAS SEMICONDUCTOR RELIABILITY REPORT

SERIES: PS2514L-1

DEVICE: PS2514L-1Y-A  
PS2514L-1Y-F3-A  
PS2514L-1Y-V-A  
PS2514L-1Y-V-F3-A

APPLICATION: Standard

IoT and Infrastructure Quality Assurance Department  
Quality Assurance Division.  
Renesas Electronics Corporation

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## Reliability test result

Test Items	Test Conditions	Results Failure/Size	Notes
High temperature storage	Ta=150°C, t=1000h	0/22	
Temperature humidity bias	Ta=130°C, RH=85%, VCE=40V, t=96h	0/20	
High temperature operating life	Ta=100°C, IF=Maximum current within Diode Power Dissipation rating, t=1000h	0/20	
Unbiased temperature humidity	Ta=130°C, RH=85%, t=96h	0/22	
Temperature cycle	-40°C~125°C, 850cycles	0/22	
Electrostatic discharge (HBM Method)	C=100pF, 1.5kΩ, 2000V	0/5	
Electrostatic discharge (CDM Method)	500V	0/5	
Solderability	245°C,5s Wet area 95% or more	0/22	
Resistance to Soldering Heat	260°C,10s,1time	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°C,10s,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%.