

Report No. APR-23-H0278 Date: Sep.5,2023

## RENESAS SEMICONDUCTOR RELIABILITY REPORT

APPLICATION: Standard

- SERIES: CRD5AS-12B
- DEVICE: CRD5AS-12B-T13#B00 CRD5AS-12B-T13#C01 CRD5AS-12B-T13#C0A

Quality Assurance Div. Renesas Electronics Corporation

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## 1.RELIABILITY TEST

	TEST CONDITION	Test Results	
ITEM		NUMBER OF SAMPLES	NUMBER OF FAILURE
Soldering Heat	Reflow(260℃max,255℃×10s, 2times)	22	0
Solderability	245℃, 5s (Solder wetting area 95% or more)	22	0
High Temperature Bias	Ta=150℃, V <sub>DRM</sub> =Maximum Rating (AC-peak), 1,000h	22	0
Continuous Operation	Tj=150℃, I <sub>T(AV)</sub> =Maximum Rating, 1,000h	22	0
High Temperature Storage Life	Ta=150℃, 1,000h	22	0
Temperature Humidity Storage	Ta=85℃, 85%RH, 1,000h	22	0
Temperature Cycle	Ta=-40°C to +150°C, 200cycles	22	0
Electrostatic- Discharge(ESD)HBM	C=100pF, R=1.5k ohm, ±1,000V	3	0
Estimated failure rate	Estimated failure rate : 10Fit or less •Tj= $55^{\circ}$ •Ea = 0.7eV •C.L. = 60%		
Reliability test results may include data from family representative products.			
<judgement criteria=""> Electrical characteristic (Solderability test is ex I<sub>RRM</sub>, I<sub>DRM</sub>, V<sub>TM</sub>, V<sub>GT</sub>, I<sub>GT</sub> *However, I<sub>GT</sub> item free</judgement>			