



Report No. APR-23-H0278

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RENESAS SEMICONDUCTOR RELIABILITY REPORT

APPLICATION: Standard

SERIES: CRD5AS-12B

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

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1.RELIABILITY TEST

| ITEM | TEST CONDITION | Test Results | |
|--|---|-------------------|-------------------|
| | | NUMBER OF SAMPLES | NUMBER OF FAILURE |
| Soldering Heat | Reflow(260°Cmax,255°C×10s, 2times) | 22 | 0 |
| Solderability | 245°C, 5s (Solder wetting area 95% or more) | 22 | 0 |
| High Temperature Bias | Ta=150°C, V _{DRM} =Maximum Rating (AC-peak), 1,000h | 22 | 0 |
| Continuous Operation | Tj=150°C, I _{T(AV)} =Maximum Rating, 1,000h | 22 | 0 |
| High Temperature Storage Life | Ta=150°C, 1,000h | 22 | 0 |
| Temperature Humidity Storage | Ta=85°C, 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°C •Ea = 0.7eV •C.L. = 60% | | |
| Reliability test results may include data from family representative products. <Judgement criteria> Electrical characteristics described in the delivery specification. (Solderability test is excluded.) I _{RRM} , I _{DRM} , V _{TM} , V _{GT} , I _{GT} *However, I _{GT} item free judgment. | | | |