

RENESAS SEMICONDUCTOR RELIABILITY REPORT

SERIES: UPC1458G2

DEVICE: UPC1458G2-A
UPC1458G2-E1-A
UPC1458G2-E2-A
UPC1458G2-AP
UPC1458G2-E1-AP
UPC1458G2-E2-AP

For both products manufactured by Naito Densai Sado Factory (NDK) and UTAC THAI Limited (UTL)

APPLICATION: Standard

Quality Assurance Div.
Renesas Electronics Corporation

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Reliability test result

| Test Items | Reference | Test Conditions | Results Reject/Size |
|--------------------------------------|------------------------|--|------------------------|
| High Temperature Operating Life | JESD22-A108 | Ta=125 °C, Apply rated voltage, 1,000h | 0/22 |
| Temperature Humidity Bias (HAST) | JESD22-A110 | Ta=85 °C, 85%RH, Apply rated voltage, 1,000h | 0/22 |
| Temperature Cycling | JESD22-A104 | Ta=-65 ~ 150 °C, 200 cycles | 0/22 |
| High Temperature Storage Life | JESD22-A103 | Ta=150 °C, 1,000h | 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, 3 times) | 0/22 |
| Solderability | J-STD-002 | 245°C, 5s (Solder wetting area 95% or more) | 0/22 |
| Electrostatic discharge (HBM Method) | JS-001 | C=100pF, R=1.5k ohm, ±1,000V | 0/3 |
| Electrostatic discharge (CDM Method) | JESD22-C101 | ±500V | 0/3 |
| Estimated Failure Rate | - | Estimated failure rate: 15Fit Ta= 55°C, Ea=0.7eV, C.L.=60% | |

Reliability test results may include data from family representative products.

MSL Preconditioning was performed prior to Temperature Humidity Bias and Temperature Cycling.

<Judgement criteria>

Electrical characteristics described in the delivery specification.

(Solderability test is excluded.)

<Preconditioning Details>

125°C, 24h + 85°C85%RH 168h(JEDEC MSL1) -> Reflow(260°Cmax, 255°Cx30s, 3 times)