

Reliability Report

For

RT9017

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Purpose

- The HTOL test is to demonstrate the quality or reliability of device subjects to the specified conditions over an extended time period.
- The ESD tests are used to classify the electrostatic discharge of microcircuits.
- The latch-up test is used to check IC latch-up characteristics.
- The environment tests are to ensure the process of assembly of this package type that meets Richtek quality specifications.

Test Items and Conditions

| Items | Condition | Readout | Q'ty | Rejects | Reference |
|-----------------------|---|------------|---------|---------|-------------|
| HTOL | T _a =125°C, VIN=1.1*VIN_MAX | 1000 hours | 77 | 0 | JESD22-A108 |
| ESD | HBM | -- | 3/ VOLT | 0 | JESD22-A114 |
| | MM | -- | 3/ VOLT | 0 | JESD22-A115 |
| | CDM | -- | 3/ VOLT | 0 | JESD22-C101 |
| Latch-up | I-TEST | -- | 9 | 0 | JESD78A |
| | V-TEST | | | | |
| Preconditioning MSL-3 | | | | | |
| Bake | 125°C | 24 hours | 385 | 0 | JESD22-A113 |
| MSL-3 Soaking | 30°C / 60% RH | 192 hours | 385 | 0 | |
| Reflow | 260 +0/-5°C | 3 cycles | 385 | 0 | |
| HTST | T _a =150°C | 1000 hours | 77 | 0 | JESD22-A103 |
| THT | T _a =85°C, 85%RH | 1000 hours | 77 | 0 | JESD22-A101 |
| TCT | T _a =-65°C ~ 150°C | 500 cycles | 77 | 0 | JESD22-A104 |
| PCT | T _a =121°C, 100%RH, 2ATM | 168 hours | 77 | 0 | JESD22-A102 |
| uHAST | T _a =130°C, 85%RH | 96 hours | 77 | 0 | JESD22-A118 |

- NOTE:**
1. Preconditioning MSL-3 test was done before HTST, THT, TCT, PCT and uHAST tests.
 2. All assembly houses are Richtek qualified suppliers.

Summary

- The test results can be applied to all of the products including a series of RT9017.
- Any questions or inquiries for regarding related products or service of Richtek, you may contact us through our technical support center.

(<http://www.Richtek.com/contact10.1.jsp>)