

Reliability Report

For

**RT9042**

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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 <sub>a</sub> =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 <sub>a</sub> =150°C	1000 hours	77	0	JESD22-A103
THT	T <sub>a</sub> =85°C, 85%RH	1000 hours	77	0	JESD22-A101
TCT	T <sub>a</sub> =-65°C ~ 150°C	500 cycles	77	0	JESD22-A104
PCT	T <sub>a</sub> =121°C, 100%RH, 2ATM	168 hours	77	0	JESD22-A102
uHAST	T <sub>a</sub> =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 RT9042.
- 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>)