

## Reliability Report

For

### **RT8070**

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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°∁,	1000 hours	77	0	JESD22-A108
	VIN=1.1*VIN_MAX				
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	<b>125</b> ℃	24 hours	385	0	JESD22-A113
MSL-3 Soaking	30°C / 60% RH	192 hours	385	0	
Reflow	260 +0/-5℃	3 cycles	385	0	
HTST	T <sub>a</sub> =150°C	1000 hours	77	0	JESD22-A103
THT	T <sub>a</sub> =85℃, 85%RH	1000 hours	77	0	JESD22-A101
TCT	$T_a$ =-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 RT8070.
- 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)

www.richtek.com RT8070 Nov. 2011