



LHA50F series Reliability test results

Oct 9, 2019
US DESIGN DEPT.

Approved : Junya Kaneda
Junya Kaneda

Prepared : Hiromu Noguchi
Hiromu Noguchi

No.	Test Item	Testing conditions	Conditions of acceptability	Number of samples	Number of failures
1	Heat cycle test	(1) $-40^{\circ}\text{C} \sim 125^{\circ}\text{C}$ 30minutes each (2) 800cycles	(1)No degradation of electric characteristics after test. (2)No crack at solder joint.	1	0
2	High temperature/ High humidity bias test	(1) $T_a=85^{\circ}\text{C}$, RH=85% (2) At rated input (3) Load 0% (4) 1,000hours	(1)No degradation of electric characteristics after test.	1	0
3	Vibration test	(1) $f=10\sim 150\text{Hz}$, $29.4\text{m/s}^2(3\text{G})$ (2) 3minutes period (3) 60minutes each X, Y and Z axis	(1)No degradation of electric characteristics after test. (2)No crack at solder joint. (3)No mechanical damage of appearance.	3	0
4	Impact test	(1) $294.2\text{m/s}^2(30\text{G})$, 11ms (2) Once each X, Y and Z axis	(1)No degradation of electric characteristics after test. (2)No crack at solder joint. (3)No thermal damage of appearance.	3	0
5	Electrostatic discharge immunity test	(1) Rated load. (2) Ambient temp $25\pm 10^{\circ}\text{C}$ (3) Contact Discharge : Level 4 (8kV) (4) Air Discharge : Level 4 (15kV) (5) Applied to Input,Output,FG.	(1)No protection circuit fail. (2)No output voltage drop with control circuit fail. (3)No any other function fail.	1	0