



CHS400 series Reliability test results

 Mar 19, 2013
 AS DESIGN DEPT.1

 Approved : Yoshimichi Hirokawa
 Yoshimichi Hirokawa

 Prepared : Shuhei Sawada
 Shuhei Sawada

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.	5	0
2	High temperature/ High humidity bias test	(1) $T_a=85^{\circ}\text{C}$, $\text{RH}=85\%$ (2) At rated input (3) Load 0% (4) 500hours	(1)No degradation of electric characteristics after test.	3	0
3	Vibration test	(1) $f=10\sim 55\text{Hz}$, $49.0\text{m/s}^2(5\text{G})$ (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) $196.1\text{m/s}^2(20\text{G})$, 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	Soldering heat test	(1) Soldering iron 260°C , 15 seconds (2) Mounting board : $t=1.6\text{mm}$ / FR4	(1)No crack at solder joint. (2)No marked damage of appearance.	1	0
6	Pin strength test	(1) Weight : 1.0kg (2) Bending angle : 90 deg., total 180 deg. (3) 1 cycle	(1)No degradation of electric characteristics after test. (2)No degradation of terminal	1	0
7	Static electricity immunity test	(1) Applied voltage $\pm 8\text{kV}$ (2) At rated input and load	(1)No protection circuit fail. (2)No output voltage drop with control circuit fail. (3)No any other function fail.	1	0