



SU1R5/SUC1R5 series Reliability test results

Dec 17, 2004
R&D DEPT.2

Approved : *T. Sugimori*

Prepared : *H. Takata*

No.	Test Item	Testing conditions	Conditions of acceptability	Number of samples	Number of failures
1	Heat cycle test	(1) Pre-process Step1 Humidification processing (85°C,85%,168H) Step2 Reflow soldering (Peak temperature 245°C,2times) (2) -40°C ~ 125°C 30minutes each (3) 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) Pre-process Step1 Humidification processing (85°C,85%,168H) Step2 Reflow soldering (Peak temperature 245°C,2times) (2) Ta=85°C,RH=85% (3) At rated input (4) Load 0% (5) 1000hours	(1)No degradation of electric characteristics after test.	3	0
3	Vibration test	(1) f=10~55Hz,98.0m/s ² (10G) (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) 490.3m/s ² (55G),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 340~360°C, 7.5 seconds (2) Mounting board : t=1.6mm / CEM3	(1)No crack at solder joint. (2)No marked damage of appearance.	1	0
6	Pin solderability test	(1) Pre-process Step1 Humidifying processing (100°C,100%,1H) Step2 Dip into flux (2) Dip soldering 230~240°C,2sec	(1)Over 95% of dipped part is covered with solder.	1	0
7	Pin strength test	(1) Weight:250g (2) Bending angle:90 deg.,total 180 deg. (3) No.of cycles:1 cycle	(1)No crack at solder joint. (2)No mechanical damage of appearance.	1	0
8	Static electricity immunity test	(1) Applied voltage ±8kV (2) At rated input and load	(1)No protection circuit fail. (2)No output voltage drop due to control circuit fail. (3)No any other function fail.	1	0