Please note that Cypress is an Infineon Technologies Company.

The document following this cover page is marked as “Cypress” document as this is the company that originally developed the product. Please note that Infineon will continue to offer the product to new and existing customers as part of the Infineon product portfolio.

Continuity of document content

The fact that Infineon offers the following product as part of the Infineon product portfolio does not lead to any changes to this document. Future revisions will occur when appropriate, and any changes will be set out on the document history page.

Continuity of ordering part numbers

Infineon continues to support existing part numbers. Please continue to use the ordering part numbers listed in the datasheet for ordering.

www.infineon.com

信頼性試験成績書

0.5um Process Technology Product and Package

Legacy Fujitsu Reliability Engineering Test Report

Wafer Process : Aizu Fujitsu
Assembly : J-Devices

Reliability Test 1

Device Type : MCU 1
Package Type : Plastic QFP-100 Package

Test Item	Test Condition	Tested Number		Tested Time	Failed Number
High Temperature Operation Life 高温連続動作試験	150 ℃ V_{DD}=Maximum Rating	231 (77x3Lots)	(a)	1000h	0
Temperature Humidity Bias 高湿連続動作試験	85 ℃ / 85% RH V_{DD}=Maximum Rating	138 (46x3Lots)	(a)	1000h	0
High Temperature Storage 高温保存試験	150 ℃	231 (77x3Lots)	(a)	1000h	0
Temperature Cycling 温度サイクル	-65℃～150℃	231 (77x3Lots)	(a)	500cyc	0
Pressure Cooker Test	121℃, 100%RH: 2.03E5 Pa	231 (77x3Lots)	(a)	168h	0
Pressure Cooker Test with Bias	130℃, 85%RH: 2.33E5 Pa V_{DD}=Maximum Rating	99 (33x3Lots)	(a)	96h	0

(a) Pre-condition: Baking (125℃, 24h) +Moisture Absorption (30℃/80%RH, 120h) +IR 260℃ Max.
+Moisture Absorption (30℃/80%RH, 96h) +IR 260℃ Max.

Reliability Test 2

Device Type : MCU 2
Package Type : Plastic LQFP-120 Package

Test Item	Test Condition	Tested Number		Tested Time	Failed Number
High Temperature Storage 高温保存試験	150 ℃	26	(b)	1000h	0
Temperature Cycling 温度サイクル	-65℃～150℃	46	(b)	500cyc	0
Pressure Cooker Test	121℃, 100%RH: 2.03E5 Pa	46	(b)	168h	0

(b) Pre-condition: Baking (125℃, 24h) +Moisture Absorption (30℃/80%RH, 120h) +IR 260℃ Max.
+Moisture Absorption (30℃/80%RH, 96h) +IR 260℃ Max.

Reliability Test 3

Device Type : MCU 3
Package Type : Plastic SSOP-30 Package

Test Item	Test Condition	Tested Number		Tested Time	Failed Number
High Temperature Storage 高温保存試験	150 ℃	55		1000h	0
Temperature Cycling 温度サイクル	-65℃～150℃	25	(c)	500cyc	0
Thermal Shock 熱衝撃	0℃～100℃	25	(c)	200cyc	0
Pressure Cooker Test	121℃, 100%RH: 2.03E5 Pa	25	(c)	168h	0
Pressure Cooker Test with Bias	121℃, 100%RH: 2.03E5 Pa V_{DD}=Maximum Rating	25	(c)	96h	0

(c) Pre-condition: Baking (125℃, 24h) +Moisture Absorption (85℃/85%RH, 24h) +IR 245℃ Max.

Data Retention Test

Device Type : Test Chip

Test Condition	Tested Number	Failed Number
250℃ (Wafer Level Bake x168h) (Data pattern all '0')	231 (77x3Lots)	0

Endurance Test

Device Type : MCU 4
Package Type : Plastic QFP-100 Package

Test Condition	Tested Number	Failed Number
125℃ (10,000 times) (V_{DD}=Maximum Rating)	231 (77x3Lots)	0

Document History Page

Document Title: Qualification Report of 0.5um technology product with J-Devices Package (CU50AF-F)
Document Number: 002-20010

Rev.	ECN No.	Orig. of Change	Description of Change
**	5769422	KUMI	Initial release.