

RELIABILITY MONITOR REPORT
FOR

BGA Module Package

Dallas Semiconductor

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This Report was prepared by
Dallas Semiconductor Reliability Engineering

Summary:

The data in the tables that follow was generated as the result of an on-going Package Reliability Monitor. The assemblies covered by this package monitor are:

ASSY SITE	PINS	PACKAGE	ASSY SITE	PINS	PACKAGE
ATP (Amkor, PI)	256	MCMBGA	ATP (Amkor, PI)	300	MCMBGA
Carsem	48	BGA Module w/RRBattery	Dallas	256	BGA Module w/RRBattery
Dallas	168	BGA Module, 1 Side	Dallas	168	BGA Module, 2 Sided, Frame
Fastech	168	BGA Module, 1 Side	Stats	256	MCMBGA
Stats	300	MCMBGA			

Note: Due to the nature of the construction on this assembly, there is no operating life data collected

The reliability data follows. At the start of this data is a description of the assembly vehicle used to generate this reliability data. The next section is the detailed reliability data for each stress. The reliability data section includes the latest data available. This report covers data between 04/01/2004 and 03/31/2005.

Assembly Information:

Package Type: BGA Module 1725 mil
 Flammability: UL 94-V0
 Moisture Sensitivity (JEDEC J-STD20A) Level 3
 Date Code Range: 0350 to 0418

PRECONDITIONING LEVEL 3

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
STORAGE LIFE	0350	DS3832	125C	24 HRS	24	0	
MOISTURE SOAK			30C/60% R.H.	192 HRS	24	0	
CONVECTION REFLOW			220C +/-0C	2 PASS	24	0	
EXTERNAL VISUAL			JESD22-B101		24	0	
STORAGE LIFE	0418	DS3832	125C	24 HRS	24	0	
MOISTURE SOAK			30C/60% R.H.	192 HRS	24	0	
CONVECTION REFLOW			220C +/-0C	2 PASS	24	0	
EXTERNAL VISUAL			JESD22-B101		24	0	
Total:						0	

STORAGE LIFE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
STORAGE LIFE	0350	DS3832	85 C	1000 HRS	8	0	
STORAGE LIFE	0418	DS3832	85 C	1000 HRS	8	0	
Total:						0	

TEMPERATURE CYCLE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
TEMP CYCLE	0350	DS3832	-40 TO 85C	1000 CYS	8	0	
TEMP CYCLE	0418	DS3832	-40 TO 85C	1000 CYS	8	0	
EXTERNAL VISUAL			JESD22-B101		8	0	
Total:						0	

UNBIASED MOISTURE RESISTANCE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
MOISTURE SOAK	0350	DS3832	60C/90% R.H.	1000 HRS	8	0	
MOISTURE SOAK	0418	DS3832	60C/90% R.H.	1000 HRS	8	0	
				Total:		0	