

RELIABILITY MONITOR REPORT  
FOR

**Module Package**

**Dallas Semiconductor**

4401 South Beltwood Parkway  
Dallas, TX 75244-3292

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		
Dallas	28	Module	Dallas	6 Module
Dallas	10	Module w/Bent Frame	Dallas	14 Module w/Bent Frame
Dallas	16	Module w/Bent Frame	Dallas	24 Module w/Bent Frame
Dallas	28	Module w/Bent Frame	Dallas	7 Module w/Bent Frame
Dallas	24	Module w/Hi Density SMT	Dallas	26 Module w/Hi Density SMT
Dallas	28	Module w/Hi Density SMT	Dallas	32 Module w/Hi Density SMT
Dallas	36	Module w/Hi Density SMT	Dallas	40 Module w/Hi Density SMT
Dallas	28	Module w/SMT	Dallas	32 Module w/SMT
Dallas	0	Module w/Thru Hole	Dallas	24 Module w/Thru Hole
Dallas	28	Module w/Thru Hole	Dallas	32 Module w/Thru Hole
Dallas	40	Module w/Thru Hole	Dallas	42 Module w/Thru Hole
Fastech	6	Module	Fastech	10 Module w/Bent Frame
Fastech	14	Module w/Bent Frame	Fastech	16 Module w/Bent Frame
Fastech	24	Module w/Bent Frame	Fastech	28 Module w/Bent Frame
Fastech	24	Module w/Hi Density SMT	Fastech	28 Module w/Hi Density SMT
Fastech	32	Module w/Hi Density SMT	Fastech	36 Module w/Hi Density SMT
Fastech	40	Module w/Hi Density SMT	Fastech	28 Module w/SMT
Fastech	32	Module w/SMT	Fastech	24 Module w/Thru Hole
Fastech	28	Module w/Thru Hole		

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

The reliability data follows. A 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 07/01/2003 and 06/30/2004.

**Assembly Information:**

Package Type: Module 720 mil  
 Flammability: UL 94-V0  
 Moisture Sensitivity  
 (JEDEC J-STD20A)  
 Date Code Range: 0318 to 0323

**PACKAGE TESTS**

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
SOLDERABILITY	0318	DS12887	JESD22-B102		3	0	
PHYSICAL DIMENSIONS	0318	DS12887	JESD22-B100		6	0	
SOLDERABILITY	0323	DS12887	JESD22-B102		3	0	
PHYSICAL DIMENSIONS	0323	DS12887	JESD22-B100		6	0	
<b>Total:</b>						<b>0</b>	

**TEMPERATURE CYCLE**

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
TEMP CYCLE	0318	DS12887	-40 TO 85C	300 CYS	100	0	
TEMP CYCLE	0323	DS12887	-40 TO 85C	300 CYS	100	0	

**Total: 0**

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**TEMPERATURE HUMIDITY BIAS**

<b>DESCRIPTION</b>	<b>DATE CODE</b>	<b>TEST VEHICLE</b>	<b>CONDITION</b>	<b>READPOINT</b>	<b>QUANTITY</b>	<b>FAILS</b>	<b>FA NO</b>
BIASED MOISTURE	0318	DS12887	85/85, 5.5 VOLTS	1000 HRS	100	0	
BIASED MOISTURE	0323	DS12887	85/85, 5.5 VOLTS	1000 HRS	100	0	
				<b>Total:</b>		<b>0</b>	