



04/27/2005

RELIABILITY MONITOR REPORT  
FOR

**Power Cap 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	2	Power Cap	Dallas	4 Power Cap
Fastech	2	Power Cap	Fastech	34 Power Cap
Fastech	4	Power Cap		

The calculated failure rate for this assembly is:

**FAILURE RATE:**                      **MTTF (YRS): 925**                      **FITS: 123.4**

The parameters used to calculate this failure rate are as follows:

**Cf: 60%**                      **Ea: 0.7**                      **B: 0**                      **Tu: 25 °C**                      **Vu: 5.5 Volts**

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:                      Power Cap 980 mil  
 Flammability:                      UL 94-V0  
 Moisture Sensitivity  
 (JEDEC J-STD20A)                      Level 3  
 Date Code Range:                      0409      to      0409

**OPERATING LIFE**

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
HIGH TEMP OP LIFE	0409	DS1644	85 C, 5.5V (PSA) & 0.0V (PSB)	1000 HRS	77	0	
<b>Total:</b>						<b>0</b>	

**PACKAGE TESTS**

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
X-RAY	0409	DS1644	MIL-STD-883-2012 : TOP & SIDE VIEW		6	0	
PHYSICAL DIMENSIONS			JESD22-B100		6	0	
EXTERNAL VISUAL			JESD22-B101		6	0	
<b>Total:</b>						<b>0</b>	

**TEMPERATURE CYCLE**

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
TEMP CYCLE	0409	DS1644	-40 TO 85C	1000 CYS	77	0	
<b>Total:</b>						<b>0</b>	

**UNBIASED MOISTURE RESISTANCE**

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	FA NO
MOISTURE SOAK	0409	DS1644	60C/90% R.H.	1000 HRS	77	0	
<b>Total:</b>						<b>0</b>	

**FAILURE RATE:**                      **MTTF (YRS): 925**                      **FITS: 123.4**