

# RELIABILITY REPORT



**RELIABILITY DATA**  
**LTC1059/1060/61/62/63/64/65/66/67/68/69/1164/1264 MF5/MF10**  
**8/21/2006**

**• OPERATING LIFE TEST**

PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE HOURS <sup>(1)</sup> AT +125°C	NUMBER OF <sup>(2)</sup> FAILURES
CERDIP	2,757	8537	0140	4,463.93	3
FLATPAK/LCC	80	9604	9604	266.82	0
SIDEBRAZE	146	9201	9525	89.59	0
PLASTIC DIP	4,780	8601	0205	7,810.44	0
SOIC/SOT/MSOP	522	9213	9845	522.85	0
	8,285			13,153.63	3

**• HIGHLY ACCELERATED STRESS TEST AT +131°C/85%RH**

PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE HOURS <sup>(4)</sup> AT +85°C	NUMBER OF FAILURES
PLASTIC DIP	765	9101	9301	1,436.34	0
SOIC/SOT/MSOP	379	9019	9341	783.78	0
	1,144			2,220.12	0

**• PRESSURE COOKER TEST AT 15 PSIG, +121°C**

PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE HOURS	NUMBER OF FAILURES
PLASTIC DIP	17,408	8847	0613	1,667.69	1
SOIC/SOT/MSOP	15,392	9019	0601	1,609.00	0
SSOP/TSSOP	542	9546	0617	89.48	0
	33,342			3,366.17	1

**• TEMP CYCLE FROM -65°C to +150°C**

PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE CYCLES	NUMBER OF FAILURES
CERDIP	554	8521	0113	41.00	0
FLATPAK/LCC	309	9121	0547	41.96	0
PLASTIC DIP	11,204	8847	0613	2,144.91	0
SOIC/SOT/MSOP	9,273	9019	0601	2,669.87	0
SSOP/TSSOP	441	9546	0617	70.10	0
	21,781			4,967.84	0

**• THERMAL SHOCK FROM -65°C to +150°C**

PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE CYCLES	NUMBER OF FAILURES
CERDIP	394	8521	0113	14.41	0
FLATPAK/LCC	307	9121	0547	49.58	0
PLASTIC DIP	5,020	8847	0449	1,689.35	0
SOIC/SOT/MSOP	4,855	9019	0601	1,599.03	0
SSOP/TSSOP	400	9546	0136	47.00	0
	10,976			3,399.37	0

(1) Assumes Activation Energy = 0.7 Electron Volts  
(2) Failure Rate Equivalent to +55°C, 60% Confidence Level = 4.10 FITS  
(3) Mean Time Between Failures in Years = 27,824  
(4) Assumes 20X Acceleration from 85°C to +131°C  
Note: 1 FIT = 1 Failure in One Billion Hours.