

# RELIABILITY REPORT



## RELIABILITY DATA

**LTC660 LTC1516/17/22/22 LTC1622/49 LTC1775 LTC1922 LTC3721/22/23**

**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
PLASTIC DIP	248	9445	0014	174.74	0
SOIC/SOT/MSOP	866	9426	0401	741.92	0
SSOP/TSSOP	154	0337	0337	154.00	0
	1,268			1,070.65	0

**• 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
SOIC/SOT/MSOP	406	9426	9708	1,141.94	0
	406			1,141.94	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	401	9418	0144	113.31	0
SOIC/SOT/MSOP	6,002	9426	0614	890.97	0
SSOP/TSSOP	347	0006	0317	117.03	0
	6,750			1,121.32	0

**• TEMP CYCLE FROM -65°C to +150°C**

PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE CYCLES	NUMBER OF FAILURES
PLASTIC DIP	331	9418	0144	100.86	0
SOIC/SOT/MSOP	10,855	9426	0613	2,824.90	0
SSOP/TSSOP	75	0006	0026	66.38	0
	11,261			2,992.14	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
PLASTIC DIP	279	9418	9440	163.94	0
SOIC/SOT/MSOP	4,472	9426	0613	1,914.81	0
SSOP/TSSOP	274	0006	0243	195.88	0
	5,025			2,274.62	0

(1) Assumes Activation Energy = 0.7 Electron Volts

(2) Failure Rate Equivalent to +55°C, 60% Confidence Level = 11.05 FITS

(3) Mean Time Between Failures in Years = 10,324

(4) Assumes 20X Acceleration from 85°C to +131°C

Note: 1 FIT = 1 Failure in One Billion Hours.