

# RELIABILITY REPORT



## RELIABILITY DATA

**LTC1409 / 1410 / 1415 / 1419 / 1603 / 1604 / 1605 / 1658**

**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
SIDEBRAZE	50	9513	9513	75.04	0
SOIC/SOT/MSOP	488	9513	9825	372.06	0
SSOP/TSSOP	168	9740	0213	201.74	0
	706			648.85	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	227	9651	0510	5.45	0
SOIC/SOT/MSOP	1,004	9604	0527	104.44	0
SSOP/TSSOP	249	9612	0421	18.05	0
	1,480			127.93	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	144	9651	0510	14.40	0
SOIC/SOT/MSOP	252	9650	0502	29.00	0
SSOP/TSSOP	248	9604	0421	69.90	0
	644			113.30	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	44	9651	9651	4.40	0
SOIC/SOT/MSOP	197	9650	0502	39.00	0
SSOP/TSSOP	147	9612	9824	19.40	0
	388			62.80	0

(1) Assumes Activation Energy = 0.7 Electron Volts

(2) Failure Rate Equivalent to +55°C, 60% Confidence Level = 18.24 FITS

(3) Mean Time Between Failures in Years = 6,254

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