



RELIABILITY DATA

LTC1257 / LTC1450 / 51 / 52 / 53 / LTC1599 / LTC1654 / 55 / 57

6/17/04

• OPERATING LIFE TEST

PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE HOURS ⁽¹⁾ AT +125°C	NUMBER OF ⁽²⁾ FAILURES
SIDEBRAZE	97	9903	9914	74.14	0
PLASTIC DIP	378	9313	0001	301.91	0
SSOP/TSSOP	71	0213	0213	71.00	0
	546			447.05	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	1,449	9332	0245	211.08	0
SOIC/SOT/MSOP	2,514	9331	0206	306.35	0
SSOP/TSSOP	473	9912	0213	131.94	0
	4,436			649.37	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	953	9751	0245	277.65	0
SOIC/SOT/MSOP	823	9440	0206	213.25	0
SSOP/TSSOP	173	0006	0213	175.16	0
	1,949			666.06	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	600	9751	9950	131.50	0
SOIC/SOT/MSOP	445	9521	0044	98.54	0
SSOP/TSSOP	99	9912	0006	99.74	0
	1,144			329.78	0

(1) Assumes Activation Energy = 0.7 Electron Volts

(2) Failure Rate Equivalent to +55°C, 60% Confidence Level = 26.48 FITS

(3) Mean Time Between Failures in Years = 4,308

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