

RELIABILITY DATA

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

8/21/2006

• 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	1,499	9332	0531	212.28	0
SOIC/SOT/MSOP	2,614	9331	0611	324.35	0
SSOP/TSSOP	622	9912	0409	150.81	0
	4,735			687.43	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	873	9440	0611	218.25	0
SSOP/TSSOP	273	0006	0409	185.16	0
	2,099			681.06	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	544	9521	0611	153.44	0
SSOP/TSSOP	199	9912	0409	109.74	0
	1,343			394.68	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.