

RELIABILITY DATA

LTC1044 / LTC1046 / LTC1144 / LTC1255

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
CERDIP	533	8438	9821	412.82	0
HERMETIC	172	8413	8443	423.21	0
SIDEBRAZE	719	9524	9631	871.80	0
PLASTIC DIP	2,773	8426	0237	6,429.31	0
SOIC/SOT/MSOP	13,936	8501	0546	30,976.54	0
	18,133			39,113.69	0

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

PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE HOURS ⁽⁴⁾ AT +85°C	NUMBER OF FAILURES
PLASTIC DIP	486	9224	0009	1,166.52	0
SOIC/SOT/MSOP	1,412	9044	0013	3,416.92	0
	1,898			4,583.44	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	5,120	8426	0513	673.96	0
SOIC/SOT/MSOP	17,560	8509	0609	2,425.92	1
	22,680			3,099.87	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	180	8438	9617	15.30	0
HERMETIC	30	8413	8443	0.30	0
PLASTIC DIP	2,287	9144	0329	804.54	0
SOIC/SOT/MSOP	5,346	8509	0609	2,459.31	0
	7,843			3,279.46	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
HERMETIC	79	8813	8813	79.00	0
PLASTIC DIP	2,005	9206	9849	1,121.27	0
SOIC/SOT/MSOP	5,393	8509	0609	2,947.67	0
	7,477			4,147.94	0

(1) Assumes Activation Energy = 0.7 Electron Volts

(2) Failure Rate Equivalent to +55°C, 60% Confidence Level = 0.30 FITS

(3) Mean Time Between Failures in Years = 380,257

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

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