

RELIABILITY DATA

LTC1090 / 91 / 92 / 93 / 94 / 95 / 99 / 1283

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	648	8701	9317	1,135.92	0
PLASTIC DIP	2,502	8701	0237	2,672.09	0
SOIC/SOT/MSOP	63	9234	9307	109.96	0
	3,213			3,917.97	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	395	9049	9618	671.04	0
SOIC/SOT/MSOP	363	9001	9545	840.38	0
	758			1,511.42	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	6,505	8907	0618	512.19	0
SOIC/SOT/MSOP	2,478	8823	0237	702.18	0
	8,983			1,214.36	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
CERDIP	122	8704	9208	8.15	0
PLASTIC DIP	2,511	9040	0618	356.53	0
SOIC/SOT/MSOP	1,526	8823	0237	1,083.90	0
	4,159			1,448.57	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
CERDIP	182	8736	9203	24.00	0
PLASTIC DIP	634	8907	9808	204.40	0
SOIC/SOT/MSOP	837	9001	9639	649.40	0
	1,653			877.80	0

(1) Assumes Activation Energy = 0.7 Electron Volts

(2) Failure Rate Equivalent to +55°C, 60% Confidence Level = 3.02 FITS

(3) Mean Time Between Failures in Years = 37,774

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

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