

RELIABILITY REPORT



RELIABILITY DATA

LTC1096/98 LTC1196/97/98/99 LTC1272/73/74/75/76/77/78/79/82/85/86/87/88/89
 LTC1290/91/92/93/94/96/97/98 LTC1390/91/92/93 LTC1400/01/16/18 LTC1591/94/97/98
 LTC1798 LTC1821

8/10/2007

● **OPERATING LIFE TEST**

PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE HOURS ⁽¹⁾ AT +125°C	NUMBER OF FAILURES ⁽²⁾
CERDIP	620	8947	0116	1,077.45	0
SIDEBRAZE	14	9126	9126	47.07	0
PLASTIC DIP	954	9126	0414	850.28	0
SOIC/SOT/MSOP	721	9113	0620	701.76	0
SSOP/TSSOP	264	9740	0419	270.38	0
	2,573			2,946.94	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	155	9103	9739	580.84	0
SOIC/SOT/MSOP	64	9219	9323	92.52	0
	219			673.36	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	7,494	9103	0550	407.94	0
SOIC/SOT/MSOP	8,747	9143	0541	1,084.26	0
SSOP/TSSOP	1,085	9522	0521	266.92	0
	17,326			1,759.13	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	50	9636	9636	5.00	0
PLASTIC DIP	1,673	9229	0522	225.38	0
SOIC/SOT/MSOP	3,458	9216	0541	1,766.22	0
SSOP/TSSOP	1,014	9522	0528	750.58	0
	6,195			2,747.17	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	50	9636	9636	5.00	0
PLASTIC DIP	631	9147	9914	152.55	0
SOIC/SOT/MSOP	2,792	9143	0541	1,473.34	0
SSOP/TSSOP	767	9430	0521	458.50	0
	4,240			2,089.39	0

(1) Assumes Activation Energy = 0.7 Electron Volts
 (2) Failure Rate Equivalent to +55°C, 60% Confidence Level = 4.02 FITS
 (3) Mean Time Between Failures in Years = 28,377
 (4) Assumes 20X Acceleration from 85°C to +131°C
 Note: 1 FIT = 1 Failure in One Billion Hours.