

RELIABILITY DATA

**LTC939 / LTC1142/1143/1147/1148/1149/1159/1174/ LTC1265/1266/1267
LTC1474/75/1504/1574 / LTC1696/1698 / LTC1730 / LTC1771**

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	108	9248	9631	116.27	0
PLASTIC DIP	485	9312	9833	322.77	0
SOIC/SOT/MSOP	4,697	9245	0441	4,759.01	0
SSOP/TSSOP	198	9439	0220	142.77	0
	5,488			5,340.81	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
SOIC/SOT/MSOP	719	9418	9742	2,359.34	0
	719			2,359.34	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	2,834	9312	0317	244.04	0
SOIC/SOT/MSOP	42,313	8969	0601	2,313.98	1
SSOP/TSSOP	12,537	9405	0453	605.29	0
	57,684			3,163.31	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
PLASTIC DIP	1,435	9413	0317	497.70	0
SOIC/SOT/MSOP	26,951	9249	0441	5,059.42	0
SSOP/TSSOP	6,253	9426	0453	1,013.74	0
	34,639			6,570.86	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	1,254	9417	0237	356.30	0
SOIC/SOT/MSOP	12,465	9341	0441	3,264.73	0
SSOP/TSSOP	3,520	9426	0446	591.73	0
	17,239			4,212.76	0

(1) Assumes Activation Energy = 0.7 Electron Volts

(2) Failure Rate Equivalent to +55°C, 60% Confidence Level = 2.22 FITS

(3) Mean Time Between Failures in Years = 51,386

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

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