

# RELIABILITY REPORT



**RELIABILITY DATA**  
**LT1009 / LM136 / LM236 / LM336**  
**8/21/2006**

**• OPERATING LIFE TEST**

PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE HOURS <sup>(1)</sup> AT +125°C	NUMBER OF <sup>(2)</sup> FAILURES
HERMETIC	3,237	8311	0332	8,712.61	0
SOIC/SOT/MSOP	84	9224	9224	55.88	0
TO-92	36,017	8301	9641	51,870.91	2
	39,338			60,639.40	2

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

PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE HOURS <sup>(4)</sup> AT +85°C	NUMBER OF FAILURES
SOIC/SOT/MSOP	2,824	9224	0602	2,564.04	0
TO-92	3,507	9006	9635	6,418.56	0
	6,331			8,982.60	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	50	9327	9327	4.80	0
SOIC/SOT/MSOP	11,381	9118	0622	708.80	0
TO-92	12,280	8449	0521	850.69	2
	23,711			1,564.30	2

**• TEMP CYCLE FROM -65°C to +150°C**

PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE CYCLES	NUMBER OF FAILURES
HERMETIC	1,512	8311	0616	206.55	0
SOIC/SOT/MSOP	2,988	9224	0235	751.89	0
TO-92	5,725	8449	0521	5,783.79	0
	10,225			6,742.23	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	971	8311	0616	93.30	0
TO-3	15	8850	8850	0.23	0
SOIC/SOT/MSOP	1,597	9239	0117	514.50	0
TO-92	5,000	8442	0521	6,092.20	0
	7,583			6,700.22	0

(1) Assumes Activation Energy = 1.0 Electron Volts  
(2) Failure Rate Equivalent to +55°C, 60% Confidence Level = 0.10 FITS  
(3) Mean Time Between Failures in Years = 1,140,771  
(4) Assumes 20X Acceleration from 85°C to +131°C  
Note: 1 FIT = 1 Failure in One Billion Hours.