

# RELIABILITY REPORT



## RELIABILITY DATA LTC1553 / LTC1753

**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 FAILURES <sup>(2)</sup>
SOIC/SOT/MSOP SSOP/TSSOP	4,113	9722	0227	2,031.06	0
	4,598	9734	0317	1,484.92	0
	8,711			3,515.98	0

**• 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	254	9722	9818	651.10	0
	254			651.10	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
SOIC/SOT/MSOP SSOP/TSSOP	10,638	9722	0221	346.63	0
	5,716	9722	0150	410.55	0
	16,354			757.18	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
SOIC/SOT/MSOP SSOP/TSSOP	10,441	9722	0049	1,459.95	0
	4,848	9723	0212	1,176.00	0
	15,289			2,635.95	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
SOIC/SOT/MSOP SSOP/TSSOP	10,129	9720	0048	1,503.70	0
	4,133	9731	0212	896.60	0
	14,262			2,400.30	0

(1) Assumes Activation Energy = 0.7 Electron Volts

(2) Failure Rate Equivalent to +55°C, 60% Confidence Level = 3.37 FITS

(3) Mean Time Between Failures in Years = 33,851

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

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