

## RELIABILITY DATA

**LTC1433/1434/1435/1436/1437/1438/1439 LTC1538/1539 LTC1624**

**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>
SIDEBRAZE	115	9601	9626	115.07	0
PLASTIC DIP	39	9626	9626	19.51	0
SOIC/SOT/MSOP	219	9714	0508	142.91	0
SSOP/TSSOP	409	9601	9901	454.40	0
	782			731.89	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
SSOP/TSSOP	321	9602	9709	932.18	0
	321			932.18	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	6,660	9629	0527	346.61	0
SSOP/TSSOP	26,193	9622	0621	1,307.15	0
	32,853			1,653.75	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	5,902	9623	0527	785.40	0
SSOP/TSSOP	25,245	9622	0621	3,867.77	0
	31,147			4,653.17	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
SOIC/SOT/MSOP	5,315	9623	0527	726.30	0
SSOP/TSSOP	16,326	9622	0621	2,845.32	0
	21,641			3,571.62	0

(1) Assumes Activation Energy = 0.7 Electron Volts

(2) Failure Rate Equivalent to +55°C, 60% Confidence Level = 16.17 FITS

(3) Mean Time Between Failures in Years = 7,055

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

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