

# RELIABILITY DATA

LTC1314 / 1315

LTC1421 / 1422 / 1470 / 1471 / 1472 / 1477 / 1478

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
SIDEBRAZE	134	9640	9826	51.37	0
PLASTIC DIP	68	9413	9413	68.00	0
SOIC/SOT/MSOP	2,033	9413	0533	1,970.28	0
SSOP/TSSOP	125	9940	9940	13.48	0
	2,360			2,103.14	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	75	0050	0106	144.00	0
	75			144.00	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	348	9804	9823	62.21	0
SOIC/SOT/MSOP	6,228	9437	0612	724.72	0
SSOP/TSSOP	2,577	9438	0509	160.81	0
	9,153			947.74	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
PLASTIC DIP	199	9804	9823	20.30	0
SOIC/SOT/MSOP	11,773	9437	0624	3,011.30	0
SSOP/TSSOP	2,761	9438	0509	485.60	0
	14,733			3,517.20	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	244	9804	9820	34.79	0
SOIC/SOT/MSOP	3,175	9449	0612	1,145.50	0
SSOP/TSSOP	1,377	9626	0509	229.70	0
	4,796			1,409.99	0

(1) Assumes Activation Energy = 0.7 Electron Volts

(2) Failure Rate Equivalent to +55°C, 60% Confidence Level = 5.63 FITS

(3) Mean Time Between Failures in Years = 20,262

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

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