

RELIABILITY DATA
LTC1433/1434/1435/1436/1437/1438/1439 LTC1538/1539 LTC1624
10/26/2003

• 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	115	9601	9626	115.07	0
PLASTIC DIP	39	9626	9626	19.51	0
SOIC/SOT/MSOP	71	9714	9916	31.46	0
SSOP/TSSOP	409	9601	9901	454.40	0
	634			620.44	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
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	5,825	9629	0333	156.65	0
SSOP/TSSOP	23,703	9622	0333	1,184.41	0
	29,528			1,341.06	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	5,175	9623	0224	517.50	0
SSOP/TSSOP	23,717	9622	0329	3,508.87	0
	28,892			4,026.37	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	4,590	9623	0224	459.00	0
SSOP/TSSOP	14,801	9622	0333	2,434.92	0
	19,391			2,893.92	0

(1) Assumes Activation Energy = 0.7 Electron Volts
(2) Failure Rate Equivalent to +55°C, 60% Confidence Level = 19.08 FITS
(3) Mean Time Between Failures in Years = 5,979
(4) Assumes 20X Acceleration from 85°C to +131°C
Note: 1 FIT = 1 Failure in One Billion Hours.