

RELIABILITY REPORT



RELIABILITY DATA

LTC1588/89/90/92/95/96/1650/7541/7542/7545

LTC8043/8143/8145

8/21/2006

• 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	206	9445	0421	207.02	0
PLASTIC DIP	705	9510	0421	655.90	0
SOIC/SOT/MSOP	599	9447	9813	144.59	1
SSOP/TSSOP	90	9739	0201	72.42	0
	1,600			1,079.93	1

• 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
PLASTIC DIP	242	9345	9749	595.96	0
	242			595.96	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	4,496	9344	0613	286.63	0
SOIC/SOT/MSOP	5,298	9340	0351	918.83	0
SSOP/TSSOP	149	0121	0528	33.43	0
	9,943			1,238.89	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	1,799	9344	0617	365.88	0
SOIC/SOT/MSOP	2,108	9340	0406	884.52	0
SSOP/TSSOP	299	9912	0551	227.65	0
	4,206			1,478.05	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	468	9344	0123	110.55	0
SOIC/SOT/MSOP	1,208	9340	0247	329.79	0
SSOP/TSSOP	150	0150	0551	106.00	0
	1,826			546.34	0

(1) Assumes Activation Energy = 0.7 Electron Volts

(2) Failure Rate Equivalent to +55°C, 60% Confidence Level = 24.19 FITS

(3) Mean Time Between Failures in Years = 4,716

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

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