LINEAR TECHNOLOGY

RELIABILITY DATA

LT1130/31/32/33/34/35/36/37/38/39/40/41 / LT1237 / LT1330/31/32/36/41/42

6/17/04

• OPERATING LIFE TEST

PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE HOURS (1) AT +125°C	NUMBER OF (2) FAILURES
CERDIP	145	8831	9526	631.57	0
PLASTIC DIP	3,224	8847	0421	9,083.97	0
SOIC/SOT/MSOP	345	9213	9530	816.64	0
SSOP/TSSOP	866	9232	9939	1,449.78	1
	4,580			11,981.96	1

• HIGHLY ACCELERATED STRESS TEST AT +131°C/85%RH

PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE HOURS AT +85°C (4)	NUMBER OF FAILURES
PLASTIC DIP	356	8847	9726	807.16	1
SOIC/SOT/MSOP	837	8948	9644	1,503.06	0
SSOP/TSSOP	139	9232	9427	239.52	0
	1,332			2,549.74	1

• 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	14,752	8847	0406	901.35	0
SOIC/SOT/MSOP	28,561	8948	0401	1,896.98	0
SSOP/TSSOP	10,678	9232	0315	866.68	0
	53,991			3,665.01	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
CERDIP	40	9219	9219	4.00	0
PLASTIC DIP	9,424	9109	0406	1,820.65	0
SOIC/SOT/MSOP	12,058	8948	0401	2,671.25	0
SSOP/TSSOP	5,036	9232	0315	1,297.23	0
	26,558			5,793.13	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
CERDIP	40	9219	9219	0.60	0
PLASTIC DIP	4,117	8847	0303	1,262.66	0
SOIC/SOT/MSOP	9,014	8948	0401	2,059.12	0
SSOP/TSSOP	2,598	9402	0315	898.23	0
	15,769			4,220.61	0

(1) Assumes Activation Energy = 1.0 Electron Volts
(2) Failure Rate Equivalent to +55°C, 60% Confidence Level = 0.34 FITS
(3) Mean Time Between Failures in Years = 335,521
(4) Assumes 20X Acceleration from 85°C to +131°C
Note: 1 FIT = 1 Failure in One Billion Hours.