

RELIABILITY DATA
LT1019 / LT1029 REF01 / REF02 LT580 / LT581
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
CERDIP	49	8701	8701	334.22	0
HERMETIC	849	8502	9842	2,766.86	0
PLASTIC DIP	3,292	8519	0211	7,687.50	0
TO-92	1,351	9102	9606	4,217.14	0
	5,541			15,005.72	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
SOIC/SOT/MSOP	324	9433	9730	367.92	0
TO-92	1,288	9044	9650	2,031.58	0
	1,612			2,399.50	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	30,893	8519	0317	1,556.94	0
SOIC/SOT/MSOP	5,594	9122	0504	277.90	0
TO-92	2,477	8839	0613	1,243.82	0
	38,964			3,078.66	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	315	9410	9626	31.50	0
HERMETIC	667	8502	0125	171.20	0
PLASTIC DIP	2,407	9127	0317	499.80	0
SOIC/SOT/MSOP	1,529	9125	0504	508.64	0
TO-92	1,329	8912	0613	735.58	0
	6,247			1,946.72	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	253	9341	9447	24.03	0
HERMETIC	610	8534	0125	231.61	0
PLASTIC DIP	1,698	9127	9713	367.90	0
SOIC/SOT/MSOP	1,175	9122	0504	532.40	0
TO-92	474	9115	0613	47.40	0
	4,210			1,203.33	0

(1) Assumes Activation Energy = 1.0 Electron Volts

(2) Failure Rate Equivalent to +55°C, 60% Confidence Level = 0.12 FITS

(3) Mean Time Between Failures in Years = 950,643

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

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