LINEAR TECHNOLOGY

RELIABILITY DATA
LT1054
4/30/2003

• OPERATING LIFE TEST

PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE HOURS (1) AT +125°C	NUMBER OF (2) FAILURES
HERMETIC	1,331	8342	9746	3,588.25	0
SIDEBRAZE	105	9401	9747	165.82	0
PLASTIC DIP	879	8701	9935	4,561.78	0
SOIC/SOT/MSOP	89	9521	9526	316.69	0
	2,404			8,632.54	0

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

PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICF HOURS (4) AT +85°C	NUMBER OF FAILURES
PLASTIC DIP	150	9439	9712	410.00	0
SOIC/SOT/MSOP	2,774	9223	0308	2,683.80	0
	2,924			3,093.80	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	2,433	8716	9935	58.80	0
SOIC/SOT/MSOP	5,488	9135	0012	123.60	0
	7,921			182.40	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	49	9434	9434	4.90	0
PLASTIC DIP	894	9233	9907	254.62	0
SOIC/SOT/MSOP	1,341	9135	0113	173.87	0
	2,284			433.39	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	544	9245	9907	270.77	0
SOIC/SOT/MSOP	1,227	9135	0012	122.93	0
	1,771			393.70	0

(1) Assumes Activation Energy = 1.0 Electron Volts
(2) Failure Rate Equivalent to +55°C, 60% Confidence Level = 0.21 FITS
(3) Mean Time Between Failures in Years = 543,224
(4) Assumes 20X Acceleration from 85°C to +131°C
Note: 1 FIT = 1 Failure in One Billion Hours.