LINEAR TECHNOLOGY

RELIABILITY DATA
LT1460 / LT1790

6/27/2002

• OPERATING LIFE TEST

PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE HOURS (1) AT +125°C	NUMBER OF (2) FAILURES
PLASTIC DIP	438	9640	9914	464.31	0
SOIC/SOT/MSOP	441	9633	9909	571.65	0
	879			1,035.97	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
SOIC/SOT/MSOP	329	9644	9909	919.16	0
	329			919.16	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	1,100	9641	9944	26.43	0
SOIC/SOT/MSOP	7,790	9631	0144	729.28	0
TO-92	350	9723	0017	8.49	0
	9,240			764.20	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	300	9714	9736	30.00	0
SOIC/SOT/MSOP	4,564	9631	0149	1,888.22	0
TO-92	50	9740	9740	5.00	0
	4,914			1,923.22	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	100	9735	9739	10.00	0
SOIC/SOT/MSOP	3,894	9536	0144	1,589.74	0
TO-92	100	9735	9925	10.00	0
	4,094			1,609.74	0

(1) Assumes Activation Energy = 1.0 Electron Volts
(2) Failure Rate Equivalent to +55°C, 60% Confidence Level = 1.78 FITS
(3) Mean Time Between Failures in Years = 64,088
(4) Assumes 20X Acceleration from 85°C to +131°C
Note: 1 FIT = 1 Failure in One Billion Hours.