LINEAR TECHNOLOGY

RELIABILITY DATA
LF198 / LF398 LM198 / LM398
10/26/2003

• 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	1,275	8342	9521	2,989.20	1
PLASTIC DIP	75	8351	8733	882.28	1
	1,350			3,871.48	2

• 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	130	9433	9503	62.40	0
	130			62.40	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	2,193	9310	9842	65.83	0
SOIC/SOT/MSOP	3,309	9238	9819	123.29	0
	5,502			189.13	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	50	9412	9412	5.00	0
HERMETIC	395	8342	9535	17.00	0
PLASTIC DIP	643	8344	9842	193.73	0
SOIC/SOT/MSOP	384	9238	9819	38.40	0
	1,472			254.13	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	50	9412	9412	5.00	0
HERMETIC	185	8613	9535	101.46	0
PLASTIC DIP	150	9415	9445	35.50	0
SOIC/SOT/MSOP	289	9427	9802	28.90	0
	674			170.86	0

(1) Assumes Activation Energy = 1.0 Electron Volts
(2) Failure Rate Equivalent to +55°C, 60% Confidence Level = 1.61 FITS
(3) Mean Time Between Failures in Years = 70,855
(4) Assumes 20X Acceleration from 85°C to +131°C
Note: 1 FIT = 1 Failure in One Billion Hours.