

RELIABILITY DATA
LTC485/486/487/488/489/490/491 LTC1480/81/83/85/87 LTC1694

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 FAILURES ⁽²⁾
CERDIP	1,413	9201	0138	1,607.11	0
SIDEBRAZE	657	9201	9827	1,414.82	0
PLASTIC DIP	31,386	9010	0409	16,226.55	0
SOIC/SOT/MSOP	46,013	9213	0409	21,638.39	2
	79,469			40,886.86	2

• 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	116	9706	9736	111.36	0
SOIC/SOT/MSOP	4,706	9323	0325	5,156.16	0
	4,822			5,267.52	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	24,499	9041	0408	1,985.55	0
SOIC/SOT/MSOP	44,521	9115	0402	3,559.35	0
	69,020			5,544.91	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	17	0049	0049	1.70	0
PLASTIC DIP	9,082	9051	0408	2,570.40	0
SOIC/SOT/MSOP	17,781	9115	0349	5,220.97	0
	26,880			7,793.08	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	17	0049	0049	0.26	0
PLASTIC DIP	5,941	9051	0201	2,324.71	0
SOIC/SOT/MSOP	14,465	9115	0349	4,006.75	0
	20,423			6,331.72	0

(1) Assumes Activation Energy = 0.7 Electron Volts
(2) Failure Rate Equivalent to +55°C, 60% Confidence Level = 0.98 FITS
(3) Mean Time Between Failures in Years = 116,405
(4) Assumes 20X Acceleration from 85°C to +131°C
Note: 1 FIT = 1 Failure in One Billion Hours.