

RELIABILITY REPORT



RELIABILITY DATA
LTC485/486/487/488/489/490/491 LTC1480/81/83/85/87
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	1,413	9201	0138	1,607.11	0
SIDEBRAZE	657	9201	9827	1,414.82	0
PLASTIC DIP	34,716	9010	0621	17,004.82	0
SOIC/SOT/MSOP	55,728	9213	0620	25,074.67	0
	92,514			45,101.42	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
PLASTIC DIP	116	9706	9736	111.36	0
SOIC/SOT/MSOP	5,935	9323	0603	6,816.00	0
	6,051			6,927.36	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	24,884	9041	0613	1,994.79	0
SOIC/SOT/MSOP	46,304	9115	0621	3,762.06	0
	71,188			5,756.86	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	9,232	9051	0622	2,585.40	0
SOIC/SOT/MSOP	19,045	9115	0621	5,821.42	0
	28,294			8,408.53	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	15,778	9115	0621	4,585.55	0
	21,736			6,910.52	0

(1) Assumes Activation Energy = 0.7 Electron Volts
(2) Failure Rate Equivalent to +55°C, 60% Confidence Level = 0.26 FITS
(3) Mean Time Between Failures in Years = 438,758
(4) Assumes 20X Acceleration from 85°C to +131°C
Note: 1 FIT = 1 Failure in One Billion Hours.