

RELIABILITY DATA
LTC1440 / 1441 / 1442 / 1443 / 1444 / 1445 / 1531 / 1540 / 1541 / 1542
LTC1841 / 1842 / 1842 / 1843

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
PLASTIC DIP	278	9526	9847	216.56	0
SOIC/SOT/MSOP	988	9640	0530	1,030.04	0
	1,266			1,246.59	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	524	9540	9741	14.43	0
SOIC/SOT/MSOP	6,651	9535	0604	554.46	0
QFN/DFN	762	0231	0510	201.90	0
	7,937			770.78	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	9540	9929	30.00	0
SOIC/SOT/MSOP	9,006	9535	0604	1,260.10	0
QFN/DFN	540	0231	0510	311.98	0
	9,846			1,602.07	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	269	9540	9741	26.90	0
SOIC/SOT/MSOP	2,455	9535	0604	490.00	0
QFN/DFN	388	0231	0510	305.72	0
	3,112			822.62	0

(1) Assumes Activation Energy = 0.7 Electron Volts

(2) Failure Rate Equivalent to +55°C, 60% Confidence Level = 9.49 FITS

(3) Mean Time Between Failures in Years = 12,021

Note: 1 FIT = 1 Failure in One Billion Hours.