

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

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 ⁽²⁾ FAILURES
PLASTIC DIP	278	9526	9847	216.56	0
SOIC/SOT/MSOP	507	9640	0331	407.04	0
	785			623.60	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	6,551	9535	0248	552.06	0
QFN/DFN	602	0231	0349	165.27	0
	7,677			731.75	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	8,907	9535	0248	1,250.20	0
QFN/DFN	400	0231	0349	284.78	0
	9,607			1,564.97	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	2,355	9535	0248	480.00	0
QFN/DFN	348	0231	0349	285.72	0
	2,972			792.62	0

(1) Assumes Activation Energy = 0.7 Electron Volts
(2) Failure Rate Equivalent to +55°C, 60% Confidence Level = 18.98 FITS
(3) Mean Time Between Failures in Years = 6,010
Note: 1 FIT = 1 Failure in One Billion Hours.