

RELIABILITY DATA

LTC1697/1701/1774 LTC1911/1967/1968 LTC2442 LTC3025/26/35
 LTC3100/01/25 LTC3200/01/02/03/04/05/06/07/08/09
 LTC3210/12/14/15/16/17/18/19/21 LTC3240/50/51/52
 LTC3400/01/02/03/05/06/07/08/09/10/11/12/13/14/15
 LTC3421/22/23/24/25/26/27/28/29
 LTC3440/41/42/43/44/45/46/47/48/51/52/53/54/55/56/90
 LTC3522/25/26/29/30/31/32/33/35/37/38
 LTC3541/42/43/44/45/46/47/48/49/60/61/63/65/68/69
 LTC4001/55/65/66/67/69/85 LTC4410/11/13/56/57/58

10/16/2009

• OPERATING LIFE TEST

PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE HOURS ⁽¹⁾ AT +125°C	NUMBER OF ⁽²⁾ FAILURES
SOIC/SOT/MSOP	4,555	9928	0739	3,775.36	0
SSOP/TSSOP	1,350	0238	0746	1,135.57	0
QFN/DFN	8,099	0001	0847	7,176.77	0
	14,004			12,087.70	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
SOIC/SOT/MSOP	78	0114	0114	215.28	0
SSOP/TSSOP	329	0702	0826	368.64	0
QFN/DFN	33	0238	0238	47.52	0
	440			631.44	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
SOIC/SOT/MSOP	32,634	9928	0838	3,035.01	0
SSOP/TSSOP	10,601	0225	0834	542.50	0
DD PACK	50	0611	0611	1.20	0
QFN/DFN	68,882	0214	0850	5,320.60	0
	112,167			8,899.31	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
SOIC/SOT/MSOP	38,512	9928	0837	7,056.19	0
SSOP/TSSOP	9,421	0225	0827	2,250.90	0
QFN/DFN	60,484	0214	0833	16,794.99	0
	108,417			26,102.08	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
SOIC/SOT/MSOP	22,572	9928	0836	5,850.18	0
SSOP/TSSOP	8,057	0225	0834	1,622.25	0
QFN/DFN	49,297	0238	0850	13,820.92	0
	79,926			21,293.35	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.