

# RELIABILITY REPORT



**RELIABILITY DATA**  
**LTC1642/LTC1643/LTC1644/LTC1645/LTC1646/LTC1647**  
**LTC4221 / LTC960**

**8/21/2006**

**• OPERATING LIFE TEST**

PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE HOURS <sup>(1)</sup> AT +125°C	NUMBER OF <sup>(2)</sup> FAILURES
SIDEBRAZE	65	9927	9927	65.00	0
SOIC/SOT/MSOP	683	9927	0522	375.24	0
SSOP/TSSOP	872	9827	0502	785.60	1
	1,620			1,225.84	1

**• 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	525	9925	0533	91.75	0
SSOP/TSSOP	3,844	9830	0552	406.24	0
	4,369			497.99	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	349	9925	0533	175.18	0
SSOP/TSSOP	3,066	9830	0534	601.50	0
	3,415			776.68	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	325	9925	0533	137.25	0
SSOP/TSSOP	2,569	9902	0534	478.75	0
	2,894			616.00	0

(1) Assumes Activation Energy = 0.7 Electron Volts

(2) Failure Rate Equivalent to +55°C, 60% Confidence Level = 21.31 FITS

(3) Mean Time Between Failures in Years = 5,353

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