

# RELIABILITY REPORT



## RELIABILITY DATA

### LTC2057 / LTC6090 / LTC6091

2/13/2015

**• OPERATING LIFE TEST**

PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE HOURS AT +125°C <sup>(1)</sup>	NUMBER OF FAILURES <sup>(2),(3)</sup>
SOIC/SOT/MSOP	307	1215	1403	307.00	0
	307			307.00	0

**• HIGH TEMPEAURE STORAGE +175°C**

PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE HOURS AT +175°C	NUMBER OF FAILURES
SOIC/SOT/MSOP	231	0938	1421	154.00	0
	231			154.00	0

**• HIGHLY ACCELERATED STRESS TEST AT +131°C/85%RH<sup>(4)</sup>**

PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE HOURS <sup>(5)</sup> AT +85°C	NUMBER OF FAILURES
SOIC/SOT/MSOP	356	1138	1406	891.36	0
	356			891.36	0

**• PRESSURE COOKER TEST AT 15 PSIG, +121°C<sup>(4)</sup>**

PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE HOURS	NUMBER OF FAILURES
SOIC/SOT/MSOP	226	0938	1421	37.97	0
	226			37.97	0

**• TEMP CYCLE FROM -65°C to +150°C<sup>(4)</sup>**

PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE CYCLES	NUMBER OF FAILURES
SOIC/SOT/MSOP	231	0938	1421	115.50	0
	231			115.50	0

**• THERMAL SHOCK FROM -65°C to +150°C<sup>(4)</sup>**

PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE CYCLES	NUMBER OF FAILURES
SOIC/SOT/MSOP	77	0938	0938	38.50	0
	77			38.50	0

(1) Sample size too small for meaningful FIT calculations

(2) Failure Rate Equivalent to +55°C, assuming 60% Confidence Level & Activation Energy of 0.7eV = 38.35 FITS

(3) Mean Time Between Failures in Years = 2976

(4) Mechanical tests preceeded by J-STD-020 Preconditioning.

(5) Assumes 20X Acceleration from 85°C to +131°C

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