

RELIABILITY DATA

LTC2057 / LTC6090 / LTC6091

2/13/2015

• OPERATING LIFE TEST

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

• HIGH TEMPERAURE 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	231 231	0938	1421	154.00 154.00	0 0

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

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

• PRESSURE COOKER TEST AT 15 PSIG, +121°C⁽⁴⁾

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

• TEMP CYCLE FROM -65°C to +150°C⁽⁴⁾

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

• THERMAL SHOCK FROM -65°C to +150°C⁽⁴⁾

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