

RELIABILITY DATA

LTC2936 / LTC2937 / LTC2943 / LTC2945 / LTC2955 / LTC2960

11/24/2015

• OPERATING LIFE TEST

PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE HOURS ⁽¹⁾ AT +125°C	NUMBER OF ⁽²⁾ FAILURES
DFN/QFN	391	1146	1325	351.00	0
SSOP/TSSOP	77	1136	1136	77.00	0
	468			428.00	0

• HIGHLY ACCELERATED STRESS TEST AT +131°C/85%RH⁽⁶⁾

PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE HOURS ⁽⁵⁾ AT +85°C	NUMBER OF FAILURES
DFN/QFN	233	0111	0748	451.20	0
	233			451.20	0

• PRESSURE COOKER TEST AT 15 PSIG, +121°C⁽⁶⁾

PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE HOURS	NUMBER OF FAILURES
DFN/QFN	9,329	0649	1124	426.22	0
SOIC/SOT/MSOP	50	1118	1118	1.20	0
	9,379			427.42	0

• TEMP CYCLE FROM -65°C to +150°C⁽⁶⁾

PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE CYCLES	NUMBER OF FAILURES
DFN/QFN	9,361	0639	1124	2,008.10	0
SOIC/SOT/MSOP	49	1118	1118	4.90	0
	9,410			2,013.00	0

• THERMAL SHOCK FROM -65°C to +150°C⁽⁶⁾

PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE CYCLES	NUMBER OF FAILURES
DFN/QFN	10,260	0639	1211	2,722.50	0
SOIC/SOT/MSOP	49	1118	1118	4.90	0
	10,309			2,727.40	0

(1) Assumes Activation Energy = 0.7 Electron Volts

(2) Failure Rate Equivalent to +55°C, 60% Confidence Level = 27.58 FITS

(3) Mean Time Between Failures in Years = 4139

(4) Environmental data presented for same Process and Package Technology. Mechanical tests preceded by J-STD-020 Preconditioning.

(5) Assumes 20X Acceleration from 85°C to +130°C

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