

RELIABILITY REPORT





Reliability Data Report

Product Family R566

LTC2862 / LTC2863 / LTC2864 /
LTC2865 / LTC2874 / LTC2875 /
LTC2876 / LTC2877 / LTC2879 /
LTC4331 / LTC4332

RELIABILITY DATA
R566
5/7/2020

• OPERATING LIFE TEST					
PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE HOURS AT +125°C ⁽¹⁾	NUMBER OF FAILURES ⁽²⁾
SOIC/MSOP	4104	1116	1840	2569.37	0
QFN/DFN	80	1809	1809	267.20	0
Total	4184			2836.57	0
• HIGHLY ACCELERATED STRESS TEST AT +130°C / 85%RH ⁽⁴⁾					
PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	Equivalent K DEVICE HOURS AT +85°C	NUMBER OF FAILURES
SOIC/MSOP	1039	1521	2003	3240.96	0
Total	1039			3240.96	0
• PRESSURE COOKER TEST AT 15PSIG, +121°C					
PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE HOURS	NUMBER OF FAILURES
SOIC/MSOP	2199	1241	2006	295.40	0
QFN/DFN	375	1250	1937	9.00	0
Total	2574			304.40	0
• TEMPERATURE CYCLE TEST AT -65°C to +150°C					
PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE CYCLES	NUMBER OF FAILURES
SOIC/MSOP	2670	1241	2006	1471.70	0
QFN/DFN	560	1250	1937	56.00	0
Total	3230			1527.70	0
• THERMAL SHOCK TEST AT -65°C to +150°C					
PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE CYCLES	NUMBER OF FAILURES
SOIC/MSOP	1571	1241	1810	673.70	0
QFN/DFN	300	1250	1802	30.00	0
Total	1871			703.70	0
• HIGH TEMPERATURE STORAGE LIFE TEST AT +150°C					
PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE HOURS	NUMBER OF FAILURES
SOIC/MSOP	250	1635	1810	250.00	0
Total	250			250.00	0

(1) Sample size too small for meaningful FIT calculations.

(2) Failure Rate Equivalent to +55C, Assuming 60% Confidence Level & Activation Energy of 0.7eV = 4.15 FIT

(3) Mean Time Between Failures (MTBF) = 27501yr

(4) Assumes 20X acceleration from +85°C to +130°C.

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