

RELIABILITY REPORT





NOW PART OF



Reliability Data Report

Product Family R568

LT4220 / LT4254 / LT4256 / LT4356 /
LT4363

RELIABILITY DATA

R568

2/12/2021

• OPERATING LIFE TEST					
PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE HOURS AT +125°C	NUMBER OF FAILURES
DFN/QFN	303	630	1017	303	0
MSOP/SOIC	921	421	1740	858	0
SSOP/TSSOP	340	319	1224	340	0
Total	1564			1501	0
• BIASED HIGHLY ACCELERATED STRESS TEST AT +130°C / 85%RH *					
PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	Equivalent K DEVICE HOURS AT +85°C**	NUMBER OF FAILURES
MSOP/SOIC	1185	1017	1914	2275.2	0
Total	1185			2275.2	0
• TEMPERATURE HUMIDITY BIAS TEST AT +85°C / 85%RH *					
PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	Equivalent K DEVICE HOURS AT +85°C**	NUMBER OF FAILURES
MSOP/SOIC	77	1535	1535	154	0
Total	77			154	0
• PRESSURE COOKER TEST AT 15PSIG, +121°C *					
PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE HOURS	NUMBER OF FAILURES
DFN/QFN	897	0915	1848	21.53	0
MSOP/SOIC	5967	0344	1942	423.44	0
SSOP/TSSOP	200	0301	1428	21.05	0
Total	7064			466.02	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
DFN/QFN	1103	0301	1848	110.3	0
MSOP/SOIC	6915	0344	1942	1501.9	0
SSOP/TSSOP	200	0301	1428	65.1	0
Total	8218			1677.3	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
DFN/QFN	941	0840	1512	94.1	0
MSOP/SOIC	4743	0344	1812	1031.45	0
SSOP/TSSOP	150	1031	1428	15	0
Total	5834			1140.55	0
• HIGH TEMPERATURE STORAGE LIFE TEST AT +175°C					
PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE HOURS	NUMBER OF FAILURES
MSOP/SOIC	50	1702	1702	25	0
SSOP/TSSOP	144	1312	1312	144	0
Total	194			169	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
MSOP/SOIC	291	1740	1802	291	0
Total	291			291	0
(1) Failure Rate Equivalent to +55C, Assuming 60% Confidence Level & Activation Energy of 1.0eV = 1.2FIT					
(2) Mean Time Between Failures (MTBF) = 94,091 yr					
* Test is preceded by JEDEC Preconditioning: 168h 85°C/85% R.H. plus 3x IR at 260°C.					
** Assumes 20X acceleration from +85°C to +130°C					
Note: 1 FIT = 1 Failure in One Billion Hours.					