

Device Reliability Prediction

Case 1 - Black Box Estimates (50% Stress, Temp. = 40 Deg. C,
No Device burn-in)

Date: 7/10/2018

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Unit: LMZ31710RVQT-AS1

Manufacturer: Texas Instruments Inc., Warrenville, IL

<i>Device Type</i>	<i>Part Number</i>	<i>Circuit Ref Symbol</i>	<i>Qty</i>	<i>Failure Rate</i>	<i>Quality Factor</i>	<i>Total Device Failure Rate</i>
	072-00047		0.563		1	
	072-00029		0.0005		1	
	072-00005		0.0025		1	
	071-00142		0.015		1	
Resistor, Comp < 1MOhm	052-23143	R1	1	0.5	1	0.5
Resistor, Comp < 1MOhm	051-15249	R3	1	0.5	1	0.5
Resistor, Comp < 1MOhm	051-13200	R2	1	0.5	1	0.5
Capacitor, Fixed, Ceramic	047-41037	C6	1	1.0	1	1.0
Capacitor, Fixed, Ceramic	047-41035	C1,C5	2	1.0	1	2.0
Capacitor, Fixed, Ceramic	047-31525	C2	1	1.0	1	1.0
Capacitor, Fixed, Ceramic	047-24701	C4	1	1.0	1	1.0
Capacitor, Fixed, Ceramic	047-04741	C3	1	1.0	1	1.0
Inductor, Power Filter	030-00178	L1	1	19.0	1	19.0
PWM hotrod	021-00125	U1	1	0.2	1	0.2

Total FIT Rate: 26.7

Equivalent MTBF (hrs): 37,453,184