Product Qualification Report

XDPL8219

AC-DC LED Driver IC

Description

This product qualification report describes the characteristics of the product with respect to quality and reliability.

The qualification sample selection was done on production lots which were manufactured and tested on standard production processes and meet the defined requirements.

The qualification test results of those products as outlined in this document are based on **JEDEC** for target applications and may reference existing qualification results of similar products. Such referencing is justified by the structural similarity of the products.

Qualification Assessment

Fully qualified according to **JEDEC** for **Industrial Applications** and assessed as PASS

For further information about comparable products, please contact the nearest Infineon Technologies office (www.infineon.com).

XDPL8219
PG-DSO-8
MSL: 3; 260°C

qualified 2020

Electrical Stress Test Results:

Test Description	Abbr.	Condition	Duration	Lots / SS	Fail/Qty	Result
High Temperature Operating Life *JESD22-A108*	HTOL	T_j = approx. 145 °C V = 3.6 V	1000 h	3 x 77	0 / 231	PASS
Non-Volatile Memory Test (DR) *JESD22-A117*	DR	No cycling (OTP)	1000 h	3 x 78	0 / 234	PASS
Latch-Up Robustness *EIA/JESD78*	LU	T_a = 125 °C		1 x 6	0 / 6	PASS
ESD (HBM) *ANSI/ESDA/JEDEC JS-001*	HBM	Class 2 (2000 V to <4000 V)		1 x 3 (per voltage level)	0 / 3	PASS
ESD (CDM) *ANSI/ESDA/JEDEC JS-002*	CDM	Class C2A (500 V to <750 V)		1 x 3 (per voltage level)	0 / 3	PASS

Environmental Stress Test Results:

Test Description	Abbr.	Condition	Duration	Lots / SS	Fail/Qty	Result
High Temperature Storage Life *JESD22-A103*	HTSL	T_a = 150 °C	1000 h	3 x 77	0 / 231	PASS
Pre-conditioning *J-STD020 / JESD22 A113*	PC	MSL and 3 x reflow		3	0	PASS
Temperature & Humidity Biased Test *JESD22 A101*	THB[1]	T_a = 85 °C rh = 85 % V = 3.3 V	1000 h	3 x 77	0 / 231	PASS
Biased Highly Accelerated Stress Test *JESD22 A110*	HAST[1]	T_a = 130 °C r.h. = 85 % V_{CC} = 3.3 V	96 h	3 x 77	0 / 231	PASS
Temperature Cycling *JESD22 A104*	TC[1]	-65°C to +150°C	500 x	3 x 77	0 / 231	PASS

Mechanical Stress Test Results:

Test Description	Abbr.	Condition	Duration	Lots / SS	Fail/Qty	Result
Moisture Sensitivity Level *IPC / J-STD-020*	MSL	MSL 3 @ 260 °C		1 x 22	0 / 22	PASS
Solderability *JESD22 B102*	SD			3 x 15	0 / 45	PASS
Physical Dimensions *JESD22 B100*	PD			1 x 30	0 / 30	PASS

[1] For SMD devices, a preconditioning (PC) according to JESD22 was performed prior to selected reliability stress tests.

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Document reference

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