

Product Qualification Report

XDPL8105

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).

XDPL8105
PG-DSO-8
MSL: 3; 260°C

qualified: Feb 2017

Device Qualification Test Results:

Test Description	Abbr.	Condition	Duration	Lots/SS	Fail/Qty	Result
High Temperature Storage Life JESD22-A103	HTSL	$T_a = 150\text{ °C}$	1000 h	3 x 77	0 / 231	PASS
High Temperature Operating Life JESD22-A108	HTOL	$T_j = 125\text{ °C}$ $V_{\text{stress}} = V_{\text{max}}$	1000 h	3 x 77	0 / 231	PASS
Non-Volatile Memory Tests: Data Retention JESD22A-117	DR	Programming, no Cycling (OTP)	1000 h	3 x 78	0 / 234	PASS
Latch-up JESD78	LU			1 x 6	0 / 6	PASS
ESD (HBM) JESD22-A114	HBM	Class 2 (2000 V to <4000 V)		1 x 3 (per voltage level)	0 / 3	PASS
ESD (CDM) JESD22-C101	CDM	Class C2 (500 V to <1000 V)		1 x 3 (per voltage level)	0 / 3	PASS

Device/Package Qualification Test Results:

Test Description	Abbr.	Condition	Duration	Lots/SS	Fail/Qty	Result
Pre-conditioning J-STD020 / JESD22 A113	PC	MSL and 3 x reflow		3 x 154	0 / 462	PASS
Biased HAST JESD22 A110	HAST ¹	$T_a = 130\text{ °C}$ rh = 85% $V_{\text{stress}} = V_{\text{max}}$	96 h	3 x 77	0 / 231	PASS
Temperature Cycling JESD22 A104	TC ¹	-65°C to +150°C	500 cycles	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			0 / 22	PASS

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

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Document reference

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