Product Qualification Report

1EDF5673K

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).

1EDF5673K
PG-TFLGA-13
MSL: 3; 260 °C

qualified 2018

Electrical Stress Test Results:

Test Description	Abbr.	Condition	Duration	Lots/SS	Fail/Qty	Result
High Temperature Operating Live *JESD22-A108*	HTOL	T_j = approx. 145 °C V_{CC} = 5 V / 20 V	1000 h	3 x 77	0 / 231	PASS
Latch-Up Robustness *EIA/JESD 78*	LU	T_a = 125 °C		1 x 6	0 / 6	PASS[1]
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
Pre-Conditioning *J-STD020 / JESD22 A113*	PC	MSL and 3 x reflow		3	0	PASS
High Temperature Storage Life *JESD22-A103*	HTSL	T_a = 150 °C	1000 h	3 x 77	0 / 231	PASS
Biased Highly Accelerated Stress Test *JESD22 A110*	HAST[2]	T_a = 110 °C r.h. = 85% V_{CC} = 3.3 V	264 h	3 x 77	0 / 231	PASS
Temperature Cycling *JESD22 A104*	TC[2]	-65 °C to +150 °C	500x	3 x 77	0 / 231	PASS

Mechanical Stress Test Results:

Test Description	Abb	Condition	Duration	Lots	Fail/Qty	Result
Moisture Sensitivity Level *IPC / J-STD-020*	MSL	MSL 3 @ 260 °C			0 / 22	PASS
Solderability *JESD22 B102*	SD			3 x 15	0 / 45	PASS
Lead Integrity JESD22 B105	LI			3 x 12	0 / 36	PASS

[1] Pin 4 passed at <90 mA @ 125 °C, all other pins passed at 150 mA @ 125 °C. Refer to datasheet.

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

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Email: erratum@infineon.com

Document reference

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