Product Qualification Report

1EDN7146U

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).

1EDN7146U
PG-TSNP-7
MSL: 1, 260°C;

qualified before 2021

Electrical Stress Test Results:

Test Description	Abbr.	Condition	Duration	Lots/SS	Fail/Qty	Result
High Temperature Operating Life JESD22 A108	HTOL	Tj ≥ 125°C	1000 h	3 x 77	0 / 231	PASS
Temperature Humidity Bias** JESD22 A101 **or** Biased Highly Accelerated Stress Test** JESD22 A110	THB* HAST*	Ta = 85°C RH = 85% Ta = 130°C/110°C RH = 85%	1000 h 96 h/264 h	3 x 77	0 / 231	PASS
ESD (HBM) JESD22-A114	HBM	Class 1C 1000V to <2000V				PASS
ESD (CDM) JESD22-C101	CDM	Class C3 ≥1000V				PASS

Environmental Stress Test Results:

Test Description	Abbr.	Condition	Duration	Lots/SS	Fail/Qty	Result
Pre-conditioning J-STD020 / JESD22 A113	PC	MSL and 3x reflow 260°C		6 x 77	0 / 462	PASS
High Temperature Storage Life JESD22 A103	HTSL	Ta ≥ 150°C	1000 h	3 x 77	0 / 231	PASS
Temperature Cycling JESD22 A104	TC*	-55°C to +150°C	1000 cyc.	3 x 77	0 / 231	PASS
Autoclave** JESD22 A102 **or** Unbiased Highly Accelerated Stress Test** JESD22 A118	AC* UHAST*	Ta=121°C RH=100% Ta = 130°C/110°C RH = 85%	96 h 96 h/264 h	3 x 77	0 / 231	PASS

Mechanical Stress Test Results:

Test Description	Abbr.	Condition	Duration	Lots/SS	Fail/Qty	Result
Physical Dimensions JESD B-100	PD			3 x 10	0 / 30	PASS
Solderability J-STD-002	SD			3 x 5	0 / 15	PASS

Notes:

* For SMD devices reliability stress tests are performed after preconditioning test (PC) according to JESD22

** Selection of used stress test depending on specific availability of respective reliability stress equipment

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Document reference

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