Product Qualification Report

4DIR1400HA

ISOFACE™

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 **AEC Q100 Rev H** 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

Qualified acc. **AEC Q100 Rev H** and assessed as PASS

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

4DIR1400HA
PG-DSO-16
MSL: 3; 260 °C

qualified 2023

Electrical Stress Test Results:

Test Description	Abbr.	Condition	Duration	Lots/ss	Fail/Qty	Result
Electrical Distribution AEC Q100-009	ED	-55°C, +25°C, +150°C		3 x 30	0 / 90	PASS
Highly Accelerated Stress Test JESD22 A110	HAST	Ta=130°C, RH=85%	96 h	3 x 77	0 / 231	PASS
High Temperature Operating Life JESD22 A108	HTOL	Tj=150°C	1000 h	3 x 77	0 / 231	PASS
Power Temperature Cycling JEDS22 A105	PTC	Ta=-40°C up +150°C	1000 cyc	1x45	0/45	PASS
ESD Human Body Model JESD22 Axx	HBM	Class 2 (2000 – 4000 V)				PASS
ESD CDM JESD22 Axx	CDM	Class C3 (>= 1000 V)				PASS
Latch Up AEC Q100	LU					PASS

Environmental Stress Test Results:

Test Description	Abbr.	Condition	Duration	Lots/SS	Fail/Qty	Result
Temperature Cycling* JESD22 A104	TC*	-55°C to +150°C	1000 cyc	3x77	0 / 231	PASS
Unbiased HAST* JESD22 A118	uHAST*	Ta=130°C, RH=85%	96 h	3x77	0 / 231	PASS
High Temperature Storage Life JESD A103	HTSL	Ta=150°C	1000h	1x45	0 / 45	PASS
Physical Dimensions JESD B-100	PD	Generic Data				Production Data
Solderability J-STD-002	SD	Generic Data				Production Data

Notes:

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

Further abbreviations: MSL - moisture sensitivity level, Qty – quantity, RH – relative humidity, SS – sample size, Ta – ambient temperature, Ts – solder temperature

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