

Product Qualification Report

BGS 13S4N9 E6327

CMOS Switch

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).

BGS 13S4N9 E6327
PG-TSNP-9-3
MSL: 1; 260°C

qualified 2016

Electrical Stress Test Results:

Test Description	Abbr.	Condition	Duration	Lots/SS	Fail/Qty	Result
Electrical Distribution	ED	-40°C, +25°C, +85°C		3 x 10	0 / 30	PASS
High Temperature Operating Life JESD22 A101	HTOL	T _j = 150°C V _{dd} = V _{dd_max}	1000 h	3 x 77	0 / 231	PASS
High Temperature Storage Life JESD22 A103	HTSL	T _a = 150°C	1000 h	3 x 25	0 / 75	PASS
Early Life Failure Rate Study	ELFR	T _j = 150°C V _{dd} = V _{dd_max}	48 h	3 x 1000	0 / 3000	PASS
ESD (HBM) JESD22-A114B / JS-001	HBM	Class 1C 1000V to < 2000V		1 x 3	0 / 3	PASS
ESD (CDM) JESD22-C101 /JS-002	CDM	Class C3 ≥ 1000V		1 x 3	0 / 3	PASS

Environmental Stress Test Results:

Test Description	Abbr.	Condition	Duration	Lots/SS	Fail/Qty	Result
Pre-conditioning J-STD020 / JESD22 A113	PC	Soak acc. MSL 1, 3x reflow, 260°C		3 x 50	0 / 150	PASS
Temperature Cycling JESD22 A104	TC*	-55°C to +150°C	1000 cyc	3 x 25	0 / 75	PASS
Highly Accelerated temperature and humidity Stress Test JESD22 A101	HAST*	T _a = 130°C rh = 85% V _{dd} = V _{dd_max}	96 h	3 x 25	0 / 75	PASS

Mechanical Stress Test Results:

Test Description	Abbr.	Condition	Duration	Lots/SS	Fail/Qty	Result
Physical Dimensions JESD B-100	PD			1 x 30	0 / 30	PASS
Solderability J-STD-002	SD			3 x 22	0 / 66	PASS

Notes:

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

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Document reference

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