Product Qualification Report
产品质量和可靠性鉴定报告

FB20R07W1T7P_C54
EasyPACK™ 1B

Description

This product qualification report describes the characteristics of the product with respect to quality and reliability.
该鉴定报告描述了关于质量和可靠性方面的产品特性。

The qualification sample selection was done on production lots which were manufactured and tested on standard production processes and meet the defined requirements.
用于鉴定的样本采自常规的产线批次，这些批次的产出需经过标准的制造和测试工艺流程并且符合所定义的规范要求。

The qualification test results of those products as outlined in this document are based on **IEC standards** for target applications and may reference existing qualification results of similar products. Such referencing is justified by the structural similarity of the products.
本文中所概述的产品质量和可靠性测试结果是基于符合目标应用所对应的IEC标准，并且可能参考类似产品所现有的鉴定测试结果。该参考的实行是基于对产品之间的结构相似性的证明。

Qualification Assessment

Qualified according to **IEC standards** and assessed as PASS

鉴定评估结果

依照IEC标准，鉴定评估结果合格。

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

有关同类产品的进一步信息，请向就近的英飞凌办事处联系咨询。(www.infineon.com).

Test Description 测试项描述	Abbr. 测试项缩写	Condition 测试条件	Devices 样本数量	Result 测试结果
High Temperature Reverse Bias IEC 60747-9 *) **)	HTRB	1000 h V_{CE} = 0,9 x V_{CES} (DC) T_{vj} = $T_{vj,op,max}$	≥ 72 dies	PASS
High Temperature Reverse Bias IEC 60747-2 *) **)	HTRB Rec.	1000 h V_R = 0,9 x V_{RRM} (AC) T_{vj} = $T_{vj,op,max}$	≥ 72 dies	PASS
High Temperature Gate Bias IEC 60747-9 *) **)	HTGB	1000 h V_{GE} = +/- V_{GES} (DC) T_a = $T_{vj,op,max}$	≥ 72 dies	PASS
High Humidity High Temperature Reverse Bias IEC 60747-5 *)	H3TRB	1000 h T_a = 85 °C; RH = 85 % V_{CE} = 80 V (DC)	≥ 72 dies	PASS
Power Cycling [sec.] IEC 60749-5 *)	PC	100.000 Cycles ΔTvj = 80 K T_{vj} = 150 °C	≥ 6 modules	PASS
Thermal Shock Test (two chamber) IEC 60749-25*)	TST	50 Cycles Ta = -40 °C to + 125 °C	≥ 6 modules	PASS
Vibration (Sine Sweep) IEC 60068-2-6*)	VIB	5 h each direction (x, y, z) f = 5...200 Hz f1 = 5...13 Hz: A = 7,5 mm (const.) f2 = 13...200 Hz: a = 50 m/s^2 v = 1 Octave/min	≥ 6 modules	PASS
ESD-Level (HBM) JEDEC/ANSI/ESDA (JS-001) AEC-Q100-002	ESD	R = 1.5 kΩ C = 100 pF	≥ 3 devices	Class 2 2.000 V to < 4.000 V

Notes:

*) Standards are taken as a reference; slight variations from the standards according to Infineon regulations may occur.
**) The RTI / max. housing temperature of the data sheet is considered during the test evaluation.

注释:

*) 标准的采用作为参考; 英飞凌的规范较国际标准可能会出现轻微差异。

**) 測試評估時，會考慮資料表的 RTI / 最高外殼溫度。

Tvj op > 150°C is allowed for operation at overload conditions. For detailed information also about lifetime calculations please refer to AN2018-14.

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Document reference
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