## Product Quality Information

# nexperia

## **Quality Information for Product Type 1PS74SB23**

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### Quick reference

Information	Content
Device Type	1PS74SB23
Ordering Information (12NCs)	9340 549 21115, 9340 549 21125, 9340 549 21165
Qualification Grade	automotive
Package	SOT457 (TSOP6)
Waferfab	Nexperia DHAM
Assembly	Nexperia ATSN
ESD HBM	> 8000 V
Calculated Failure Rate	0.97 FIT
MTBF/MTTF	1.03E+09 hours

### **Explanation**

Automotive qualified products are in accordance with the AEC-Q101.

Electrostatic Discharge (ESD) tests are performed as described in the AEC-Q101 with each 3 positive and 3 negative pulses for each stress voltage level.

Test considered for FIT calculation: High Temperature Reverse Bias (HTRB, AEC-Q101 Test # 5). The parameters for calculation of FIT and MTBF/MTTF are as follows: Confidence level 60%, junction temperature derated to 55 °C, activation energy 0.7 eV, test time 168 - 1000 hrs.

For discrete semiconductor devices the Mean Time Between Failure (MTBF) is replaced by the Mean Time To Failure (MTTF) acronym. MTTF is calculated from the Intrinsic Failure Rate.

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