

Quality Information for Product Type BAS45AL

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Quick reference

Information	Content
Device Type	BAS45AL
Ordering Information (12NCs)	9340 312 50115
Qualification Grade	non automotive
Package	SOD80C (LLDS, MiniMelf)
Waferfab	Nexperia DHAM, Wafer foundry PHENITEC
Assembly	Subcontractor Tak Cheong
ESD HBM	> 2000 V, <= 4000 V
Calculated Failure Rate	7.59 FIT
MTBF/MTTF	1.32E+08 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.