

Quality Information for Product Type 1N4738A

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Quick reference

Information	Content
Device Type	1N4738A
Ordering Information (12NCs)	9339 316 40113, 9339 316 40133
Qualification Grade	non automotive
Package	SOD66 (DO-41)
Waferfab	Wafer foundry PHENITEC
Assembly	Subcontractor Tak Cheong
ESD HBM	> 8000 V
Calculated Failure Rate	4.43 FIT
MTBF/MTTF	2.26E+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.