

Quality Information for Product Type PMBT3906YS

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Quick reference

| Information | Content |
|------------------------------|---------------------|
| Device Type | PMBT3906YS |
| Ordering Information (12NCs) | 9340 614 55115 |
| Qualification Grade | automotive |
| Package | SOT363 (TSSOP6) |
| Waferfab | Nexperia DHAM |
| Assembly | Nexperia ATSN |
| ESD HBM | > 1000 V, <= 2000 V |
| Calculated Failure Rate | 0.44 FIT |
| MTBF/MTTF | 2.27E+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.