

## Quality Information for Product Type PMEG45U10EPD

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### Quick reference

| Information                  | Content                        |
|------------------------------|--------------------------------|
| Device Type                  | PMEG45U10EPD                   |
| Ordering Information (12NCs) | 9340 682 06139, 9340 682 06146 |
| Qualification Grade          | non automotive                 |
| Package                      | SOT1289 (CFP15)                |
| 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.