nexperia

Reliability Results for Product Type PBSS4350SS

Time period: Q1/2018 to Q4/2018

Test Results

# 2 PC Bake Tamb = 125 °C 24 hours 35200 # Preconditioning Soak Tamb = 85 °C, RH = 85% 168 hours 35200 HTPB MIL-STD-750-1 MIL-STD-750-1 MIL-STD-750-1	Rejects see below
# 1 Pre- and Post-Stress Electrical Test Tamb = 25 °C N/A all parts # 2 PC Preconditioning JESD22-A113 Bake Tamb = 125 °C 24 hours 168 hours 3 cycles 35200 # 2 MIL-STD-750-1 MIL-STD-750-1 3 cycles 35200	
# 2 PC Preconditioning Bake Tamb = 125 °C Soak Tamb = 85 °C, RH = 85% Reflow soldering 24 hours 168 hours 3 cycles 35200 HTRB MIL-STD-750-1 MIL-STD-750-1	0
HTRB	
# 5High Temperature Reverse BiasM1038 Method A $T_j = T_{jmax}$, Vr = 100% of max. datasheet reverse voltage1000 hours9680	0
# 7 TC Temperature Cycling JESD22-A104 1000 cycles 8800	0
# 8 AC $T_{amb} = 121 \text{ °C}, RH = 100 \%$ 96 hours 8800 Pressure = 205 kPa (29.7 psia)	0
$ \begin{tabular}{lllllllllllllllllllllllllllllllllll$	0
	0
# 20 RSH Resistance to Solder Heat JESD22-A111 260 °C ± 5 °C 10 s 2760	0
# 21 SD J-STD-002 1950 Solderability Test method B and D	0

Calculation of FIT and MTBF

Test considered for FIT calculation: High Temperature Reverse Bias (HTRB, AEC-Q101 Test # 5) Confidence level 60%, derated to 55 °C, activation energy 0.7 eV, test time 168 to 1000 hours

Wafer Fab	Technology	Quantity	Rejects	Failure Rate	e MTBF
Nexperia DHAM	Small Signal Bipolar	9680	0	0.44 FIT	260034 years

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