

Reliability Report 1SP0635D2

Scope

The goal of this document is to explain reliability tests done on 1SP0635D2 family. Following drivers are covered by this family:

1SP0635D2S1-FD1200R17KE3-K_B2	1SP0635D2S1-CM1500HC-66R	1SP0635D2S1-FZ800R33KF2C
1SP0635D2S1-MBN1800F33F	1SP0635D2S1-5SNA1500E330300	1SP0635D2S1-DIM1500ESM33-TS000
1SP0635D2S1-MG1500FXF1US62	1SP0635D2S1-FZ3600R17HP4	1SP0635D2S1-12
1SP0635D2S1-FZ1000R33HE3	1SP0635D2S1-FZ1200R33HE3	1SP0635D2S0-17
1SP0635D2S1-FZ1200R33KF2C	1SP0635D2S1-1MBI1200UE-330	1SP0635D2S1-17
1SP0635D2S1-CM1200HC-66H	1SP0635D2S1-5SNA3600E170300	1SP0635D2S1-33
1SP0635D2S1-FZ1500R33HE3	1SP0635D2S1-FZ2400R17HP4_B9	1SP0635D2S1-MBN1200E33E
1SP0635D2S1-FZ1500R33HL3	1SP0635D2S1-DIM1200ESM33-F000	

Serial Environmental Load

Serial stress: all the tests in the table below are done on the same samples

Test Name	Test Settings	Results
Vibration (sinusoidal)	IEC 60068-2-6:2007-12: Frequency range: 5Hz to 200Hz Cross-over frequency: 8.4Hz Displacement amplitude below cross-over frequency: ± 3.5 mm Acceleration amplitude above cross-over frequency: 1g Sweep rate: 1.0 Okt/min Test duration per axis: 20 sweeps (X, Y and Z) DUT not powered	Pass
Shock	IEC 60068-2-27:2008-02: Pulse shape: Half-sine Peak acceleration: 15g Corresponding duration of the nominal pulse: 6ms Number of shocks in each of the six directions: 100 Axis: X, Y and Z (pos. and neg.) DUT not powered	Pass
Cold	IEC 60068-2-1:2007-03: Test: Ae Temperature: -40°C Duration: 96h DUT powered	Pass
Dry heat	IEC 60068-2-2:2007-07: Test:Be Temperature: 85°C Duration: 96h DUT powered	Pass
Change of temperature	IEC 60068-2-14:2009-01: Test: Nb Cycles: 2 Start temperature: 20°C Low temperature: -40°C High temperature: 85°C Rate of change: 10K/min Exposure time at lower/upper temperature: 30min DUT powered	Pass
Damp heat	IEC 60068-2-78:2012-10: Temperature: 40°C Relative humidity: 93% Duration of test: 96h DUT not powered	Pass