Reliability Report 1SP0635V2

Scope

The goal of this document is to explain reliability tests done on 1SP0635V2 family. Following drivers are covered by this family:

1SP0635V2M1-25	1SP0635V2M1(C)-DIM1500ESM33-TS000	1SP0635V2A0D-FZ2400R33HE4
1SP0635V2M1-33	1SP0635V2M1(C)-DIM800NSM33-F000	1SP0635V2M1(C)-1MBI1500UE-330B
1SP0635V2M1-12	1SP0635V2M1(C)-FD1200R17HP4-K_B2	1SP0635V2M1(C)-5SNA1800E330400
1SP0635V2M1-17	1SP0635V2M1(C)-FD1200R17KE3-K_B2	1SP0635V2M1(C)-5SNE1000E330300
1SP0635V2M1(C)-5SNA3600E170300	1SP0635V2M1(C)-FZ1000R33HE3	1SP0635V2M1(C)-CM1200HC-66X
1SP0635V2M1(C)-1MBI1200UE-330	1SP0635V2M1(C)-FZ1200R33HE3	1SP0635V2M1(C)-CM1200HCB-66X
1SP0635V2M1(C)-1MBI1500UE-330	1SP0635V2M1(C)-FZ1200R33KF2C	1SP0635V2M1(C)-CM1800HC-66X
1SP0635V2M1(C)-1MBI1600VC-170E	1SP0635V2M1(C)-FZ1500R33HE3	1SP0635V2M1(C)-CM2400HCB-34N
1SP0635V2M1(C)-1MBI1600VR-170E	1SP0635V2M1(C)-FZ1500R33HL3	1SP0635V2M1(C)-CM2400HCB-34X
1SP0635V2M1(C)-1MBI3600VD-170E	1SP0635V2M1(C)-FZ1600R17HP4_B2	1SP0635V2M1(C)-DIM1000NSM33-TS000
1SP0635V2M1(C)-1MBI800UG-330	1SP0635V2M1(C)-FZ1800R17HP4_B29	1SP0635V2M1(C)-DIM1500ESM33-PR500
1SP0635V2M1(C)-5SNA0800N330100	1SP0635V2M1(C)-FZ2400R12HP4	1SP0635V2M1(C)-FZ1000R33HL3
1SP0635V2M1(C)-5SNA1000N330300	1SP0635V2M1(C)-FZ2400R17HP4_B29	1SP0635V2M1(C)-FZ1400R33HE4
1SP0635V2M1(C)-5SNA1200E330100	1SP0635V2M1(C)-FZ3600R12HP4	1SP0635V2M1(C)-FZ2000R33HE4
1SP0635V2M1(C)-5SNA1500E250300	1SP0635V2M1(C)-FZ3600R17HP4	1SP0635V2M1(C)-FZ2400R17HP4
1SP0635V2M1(C)-5SNA1500E330300	1SP0635V2M1(C)-FZ800R33KF2C	1SP0635V2M1(C)-FZ2400R17HP4_B9
1SP0635V2M1(C)-5SNA1500E330305	1SP0635V2M1(C)-MBN1200E33E	1SP0635V2M1(C)-FZ2400R33HE4
1SP0635V2M1(C)-CM1000HC-66R	1SP0635V2M1(C)-MBN1500E33E2	1SP0635V2M1(C)-FZ825R33HE4D
1SP0635V2M1(C)-CM1200HC-66H	1SP0635V2M1(C)-MBN1800F33F	1SP0635V2M1(C)-MBN1000E33E2
1SP0635V2M1(C)-CM1500HC-66R	1SP0635V2M1(C)-MG1500FXF1US62	1SP0635V2M1(C)-MBN1200E33D
1SP0635V2M1(C)-CM800HC-66H	1SP0635V2M1(C)-FZ1200R12HP4	1SP0635V2M1(C)-MBN1200F33F
1SP0635V2M1(C)-DIM1200ESM33-F000	1SP0635V2M1(C)-YMIF1500-33	

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: ±3.5mm 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