RELIABILITY TEST DATA

Product name : S-24C512CI-T8TxU4
Package type : 8-Pin TSSOP

No.	Test item	Test Condition	Test Time	r/n
1	High Temperature Operation	Ta=125 °C V_{CC} =Vopr max.	1000 h	0/22
2	High Temperature Bias	Ta=125 °C V_{CC} =Vabs max.×0.9	1000 h	0/22
3	#1 Temperature Humidity Bias	Ta=85 °C RH=85 % V_{CC} =Vabs max.×0.9	1000 h	0/22
4	#1 Un-saturated Pressure Cooker Bias	Ta=125 °C RH=85 % P=2×10^5 Pa V_{CC} =Vabs max.×0.9	100 h	0/22
5	High Temperature Storage	Tstg max.=150 °C	1000 h	0/22
6	Low Temperature Storage	Tstg min.=–65 °C	1000 h	0/22
7	#1 Temperature Cycle (Gas phase)	Tstg max.=150 °C , Tstg min.=–65 °C (30 min each)	200 cycles	0/22
8	#1 Thermal Shock (Liquid phase)	Tstg max.=150 °C , Tstg min.=–65 °C (5 min each)	100 cycles	0/22
9	Write/Erase Cycle	Ta=25 °C V_{CC} =Vopr max.	1×10^6 cycles	0/22
10	#1 Resistance to soldering heat - 1 (reflow)	T=260 °C ,10 s	3 times	0/22
11	#1 Resistance to soldering heat - 2 (Solder iron)	T=380 °C , 5 s	Twice	0/22
12	#2 Solderability	T=230 °C Solder material ; Sn-3.0Ag-0.5Cu	3 s	0/11
13	Whisker - 1 (Room Temperature Storage)	Ta=25±3 °C RH=40～70% criteria ; Whisker should be less than 50μm	3 months	0/10
14	Whisker - 2 (Temperature Cycle)	Tstg max.=85 °C , Tstg min.=–40 °C (30 min each) criteria ; Whisker should be less than 50μm	1000 cycles	0/10
15	Whisker - 3 (Temperature Humidity Storage)	Ta=60 °C RH=93 % criteria ; Whisker should be less than 50μm	2000 h	0/10
16	Solder Joint Reliability (Temperature Cycle + shear test)	Tstg max.=125 °C , Tstg min.=–40 °C (30 min each) Solder material ; Sn-3.0Ag-0.5Cu criteria ;After temperature cycle test, keep strength for shear stress more than the 50 % of initial mean value.	2000 cycles	0/5
17	Lead Strength (Pull test)	Pull force ; 1.0 N	30 s	0/11
18	Lead Strength (Bending test)	Load ; 0.5 N 45 degree Bend a lead	Twice	0/11