Reliability Evaluation Test Data for DG1S6

(Sn Plating)

1. Test Methods and Conditions

No.	Test Item	Test Conditions	Period	Sample	Fail
1	High Temp. Storage	T_a=150±3℃	1000 hours	22	0
2	Moisture Resistance	T_a=85±2℃ RH=85±5%	1000 hours	22	0
3	High Temp. Reverse Bias	T_j=150±3℃ V_R=60V(50Hz Duty 1/10)	1000 hours	22	0
4	Intermittent Operating Load	I_O=0.7A T_j(MAX)<150℃ 2min ON/4min OFF	5000 cycles	22	0
5	Soldering Heat ※1	Melted Solder 260±5℃ Dipping whole of the specimen.	10 seconds	22	0
6	Temperature Cycle ※1	-55℃30min→+25℃15min →+150℃30min→+25℃15min ／ 1cycle	30 cycles	22	0
7	Vibration ※2	100～2000～100Hz/4min 196m/s^2 X,Y,Z Direction 16min/a Direction	Total 48 minutes	11	0
8	Shock ※2	4900m/s^2 1ms X1,Y1,Z1 Direction 3times/a Direction	Total 9 times	11	0
9	Solderability	Sn-3.0Ag-0.5Cu Melted Solder 245±5℃ More than 95% of the total Spaces	3 seconds	11	0
10	Pressure Cooker	T_a=121±2℃ RH=100%	24 hours	22	0

Series Test

※1 Soldering Heat Test → Temperature Cycle Test

※2 Vibration Test → Shock Test

2. Failure Judgement Standard (Measuring and Criteria)

No.	Item	Measuring Conditions Ta=25±5℃	Criteria(Initial)		Criteria(Final)	
			Min	Max	Min	Max
1	V_F	I_F=0.7A	-	0.58V	-	0.58V
2	I_R	V_R=60V	-	1.0mA	-	2.0mA

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