

R5640G (-FE) Series Reliability Test Report

305640GFE -Ver. Aa

FUNCTION : Li-ion Polymer Battery Protection

PACKAGE : MSOP-8 ... Tin plate (Sn (Matte-Tin)), Halogen free resin

No.	TEST ITEM	TEST CONDITION	(*)PRE-CONDITION	TIME	r/n
1	High Temp. Operating Life	Ta=125°C VDD=Vopt max. Static	No	1000h	0/32
2	Temp. Humidity Bias	Ta=85°C RH=85% VDD=Vopt max. Static	①+②	1000h	0/22
3	High Temp. Storage	Ta=125°C	No	1000h	0/22
4	Low Temp. Storage	Ta=-55°C	No	1000h	0/22
5	Temp. Humidity	Ta=85°C RH=85%	①+②	1000h	0/22
6	Temp. Cycle	Ta=-55 to 125°C (30-30min)	①+②	100cycles	0/11
7	USPCBT	Ta=125°C RH=85% 2X10 ⁵ Pa VDD=Vopt max. Static	①+②	100h	0/11
8	USPCT	Ta=125°C RH=85% 2X10 ⁵ Pa	①+②	100h	0/11
9	Resistance To Soldering Heat(1)	IR Reflow (See Fig.1)	①	3times	0/88
10	Resistance To Soldering Heat(2)	Ta=350°C (Soldering iron)	①	5s	0/11
11	Solderability by Solder Dip Method(1)	Ta=235°C (Solder: Sn-37Pb)	③	5s	0/11
12	Solderability by Solder Dip Method(2)	Ta=245°C (Solder: Sn-3.0Ag-0.5Cu)	③	5s	0/11
13	Solderability by Wetting Balance Method(1)	Ta=235°C (Solder: Sn-37Pb)	③	Zero cross Time 3s	0/5
14	Solderability by Wetting Balance Method(2)	Ta=245°C (Solder: Sn-3.0Ag-0.5Cu)	③	Zero cross Time 3s	0/5
15	ESD(1)	HBM C=100pF R=1.5k ohm ±2.0kV	No	3times	0/11
16	ESD(2)	CDM ±1.0kV	No	Once	0/11
17	Latch-up	Pulse Current Injecting Method ±100mA	No	Once	0/11

Criteria : The electrical characteristics prescribed in the individual specifications shall be satisfied.

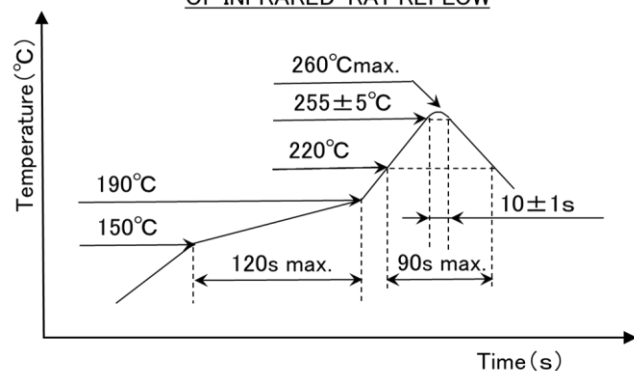
***) Pre-Condition**

The test shall be performed this pre-condition before testing.

- ① Ta=85°C, RH=85%, storage=168h
- ② IR Reflow soldering heat stress (3times)
- ③ In steam, storage=4h

[Moisture Sensitivity Level]
MSL Level = 1 (J-STD-020)

HEATING TREATMENT CONDITION OF INFRARED-RAY REFLOW



Conclusion : The reliability result was good.