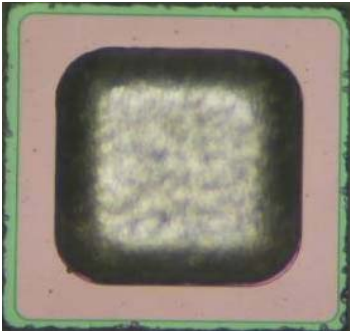
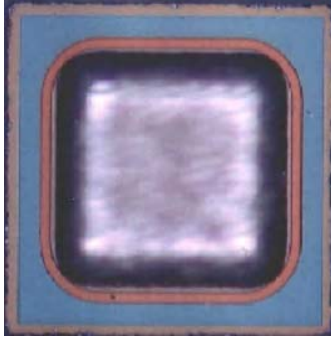
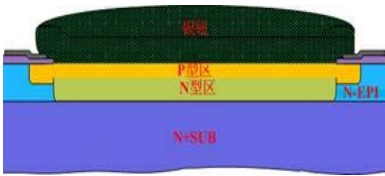
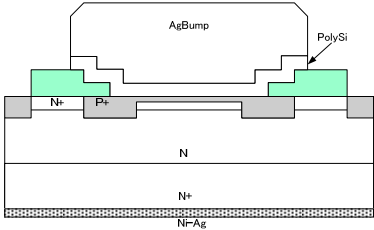


TAK BZV55B2V4~3V3 change dice source  
*comparison report*

Prepared by Lijing  
Approved by Ran Meng  
Issued date at 2016.9.28  
Reversion for A

### Comparison report - BZV55B2V4~3V3

**Dice comparison:**

	OLD	NEW	Result
Dice Photo			Dice appearance isn't different.
Dice cross-section drawing			

**Material information summary :**

	OLD	NEW
Die source	Supplier A	Supplier B
Die size (width x length)	0.28*0.28mm	0.32*0.32mm

# Reliability Test Report

TSC P/N : BZV55B2V4

- Green compound.  
 Non-Green compound.

Prepared by : Benny Yeh

Approved by : Brian Bie

Date : 4<sup>th</sup> Nov. 2016



## Environment Test Result

HTSL	0 Hour				
	VZ	ZZT	ZZK	IR	VF
Conditions	@IZ=5mA	@Izt=5mA	@Izk=1mA	@VR=1V	@IF=100mA
Limits	2.35~2.45V	< 85Ω	< 600Ω	< 50,000nA	< 1.00V
Unit	[V]	[Ω]	[Ω]	[nA]	[V]
MIN	2.382	61.740	244.30	6460.0	0.867
10%	2.392	61.992	245.96	7050.4	0.874
50%	2.407	62.780	247.80	8108.0	0.886
90%	2.429	63.516	250.62	9545.6	0.911
MAX	2.438	63.940	259.10	18964.0	0.938
AVG	2.409	62.762	248.21	8604.8	0.891
STD	0.014	0.594	2.57	2087.9	0.015

168 Hours				
VZ	ZZT	ZZK	IR	VF
@IZ=5mA	@Izt=5mA	@Izk=1mA	@VR=1V	@IF=100mA
2.35~2.45V	< 85Ω	< 600Ω	< 50,000nA	< 1.00V
[V]	[Ω]	[Ω]	[nA]	[V]
2.359	57.680	192.00	6432.0	0.860
2.386	61.616	243.38	6960.0	0.867
2.402	62.480	246.10	7692.0	0.882
2.423	63.128	249.80	8829.6	0.903
2.433	63.860	257.80	15796.0	0.930
2.403	62.303	244.59	8097.8	0.884
0.015	0.935	9.79	1797.8	0.015

RSH	0 Cycle				
	VZ	ZZT	ZZK	IR	VF
Conditions	@IZ=5mA	@Izt=5mA	@Izk=1mA	@VR=1V	@IF=100mA
Limits	2.35~2.45V	< 85Ω	< 600Ω	< 50,000nA	< 1.00V
Unit	[V]	[Ω]	[Ω]	[nA]	[V]
MIN	2.385	61.460	243.70	6708.0	0.868
10%	2.388	61.774	244.88	7059.2	0.876
50%	2.406	62.520	246.60	7460.0	0.891
90%	2.425	63.108	248.40	8264.8	0.906
MAX	2.433	63.540	249.30	12028.0	0.916
AVG	2.407	62.475	246.61	7726.3	0.890
STD	0.014	0.571	1.41	953.7	0.012

1 Cycle				
VZ	ZZT	ZZK	IR	VF
@IZ=5mA	@Izt=5mA	@Izk=1mA	@VR=1V	@IF=100mA
2.35~2.45V	< 85Ω	< 600Ω	< 50,000nA	< 1.00V
[V]	[Ω]	[Ω]	[nA]	[V]
2.383	61.420	244.70	6716.0	0.858
2.387	61.780	245.20	7052.8	0.867
2.405	62.330	246.40	7438.0	0.884
2.423	63.206	249.64	8400.0	0.895
2.433	63.900	258.60	14936.0	0.908
2.406	62.449	247.08	7958.7	0.882
0.014	0.611	2.60	1637.6	0.012

TMCL	0 Cycle				
	VZ	ZZT	ZZK	IR	VF
Conditions	@IZ=5mA	@Izt=5mA	@Izk=1mA	@VR=1V	@IF=100mA
Limits	2.35~2.45V	< 85Ω	< 600Ω	< 50,000nA	< 1.00V
Unit	[V]	[Ω]	[Ω]	[nA]	[V]
MIN	2.380	61.300	244.10	6440.0	0.874
10%	2.398	62.168	246.66	6829.6	0.882
50%	2.412	62.960	248.40	7528.0	0.891
90%	2.432	63.632	250.54	9047.2	0.913
MAX	2.444	64.340	257.60	14156.0	0.935
AVG	2.414	62.915	248.69	7884.0	0.896
STD	0.013	0.584	2.17	1317.7	0.014

100 Cycles				
VZ	ZZT	ZZK	IR	VF
@IZ=5mA	@Izt=5mA	@Izk=1mA	@VR=1V	@IF=100mA
2.35~2.45V	< 85Ω	< 600Ω	< 50,000nA	< 1.00V
[V]	[Ω]	[Ω]	[nA]	[V]
2.370	61.360	243.70	6624.0	0.866
2.389	61.696	245.00	7012.8	0.872
2.404	62.460	246.50	7748.0	0.882
2.423	63.144	249.80	9036.0	0.902
2.437	63.600	255.20	14724.0	0.921
2.405	62.414	246.89	8012.1	0.886
0.013	0.543	2.15	1354.5	0.013

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## Environment Test Result

HTRB	0 Hour				
	VZ	ZZT	ZZK	IR	VF
Conditions	@IZ=5mA	@Izt=5mA	@Izk=1mA	@VR=1V	@IF=100mA
Limits	2.35~2.45V	< 85Ω	< 600Ω	< 50,000nA	< 1.00V
Unit	[V]	[Ω]	[Ω]	[nA]	[V]
MIN	2.382	61.740	245.80	6996.0	0.870
10%	2.391	61.964	246.36	7335.2	0.875
50%	2.407	62.660	247.80	8820.0	0.892
90%	2.421	63.560	249.90	11016.0	0.908
MAX	2.436	64.300	256.80	15704.0	0.922
AVG	2.407	62.723	248.13	9027.8	0.892
STD	0.011	0.621	1.80	1645.1	0.013

168 Hours				
VZ	ZZT	ZZK	IR	VF
@IZ=5mA	@Izt=5mA	@Izk=1mA	@VR=1V	@IF=100mA
2.35~2.45V	< 85Ω	< 600Ω	< 50,000nA	< 1.00V
[V]	[Ω]	[Ω]	[nA]	[V]
2.378	59.960	244.00	6776.0	0.866
2.390	61.740	245.40	7055.2	0.870
2.405	62.280	246.60	7680.0	0.886
2.419	62.988	247.98	8794.4	0.901
2.433	63.160	253.60	14924.0	0.917
2.404	62.308	246.79	8000.1	0.887
0.011	0.534	1.65	1382.9	0.012

DISP	0 Hour				
	VZ	ZZT	ZZK	IR	VF
Conditions	@IZ=5mA	@Izt=5mA	@Izk=1mA	@VR=1V	@IF=100mA
Limits	2.35~2.45V	< 85Ω	< 600Ω	< 50,000nA	< 1.00V
Unit	[V]	[Ω]	[Ω]	[nA]	[V]
MIN	2.378	61.520	244.40	1885.6	0.870
10%	2.387	61.952	246.36	7170.4	0.876
50%	2.412	62.800	248.10	8172.0	0.889
90%	2.427	63.620	251.02	10324.0	0.910
MAX	2.433	63.920	255.90	16388.0	0.951
AVG	2.410	62.795	248.46	8502.9	0.892
STD	0.014	0.620	2.15	1860.8	0.015

168 Hours				
VZ	ZZT	ZZK	IR	VF
@IZ=5mA	@Izt=5mA	@Izk=1mA	@VR=1V	@IF=100mA
2.35~2.45V	< 85Ω	< 600Ω	< 50,000nA	< 1.00V
[V]	[Ω]	[Ω]	[nA]	[V]
2.375	61.460	243.50	2202.0	0.856
2.383	61.972	245.22	7076.8	0.868
2.409	62.620	246.90	7764.0	0.880
2.424	63.288	249.18	9075.2	0.900
2.430	64.140	255.10	12716.0	0.948
2.406	62.600	247.24	8063.2	0.883
0.014	0.544	2.03	1354.8	0.015

TMCL	0 Cycle				
	VZ	ZZT	ZZK	IR	VF
Conditions	@IZ=5mA	@Izt=5mA	@Izk=1mA	@VR=1V	@IF=100mA
Limits	2.35~2.45V	< 85Ω	< 600Ω	< 50,000nA	< 1.00V
Unit	[V]	[Ω]	[Ω]	[nA]	[V]
MIN	2.381	61.580	244.90	6484.0	0.869
10%	2.393	62.028	246.16	7398.4	0.878
50%	2.406	62.800	248.10	8344.0	0.892
90%	2.424	63.416	250.18	10299.2	0.912
MAX	2.444	63.640	255.50	15488.0	0.926
AVG	2.408	62.760	248.38	8689.1	0.894
STD	0.013	0.519	1.91	1479.7	0.014

2520 Cycles				
VZ	ZZT	ZZK	IR	VF
@IZ=5mA	@Izt=5mA	@Izk=1mA	@VR=1V	@IF=100mA
2.35~2.45V	< 85Ω	< 600Ω	< 50,000nA	< 1.00V
[V]	[Ω]	[Ω]	[nA]	[V]
2.377	61.240	243.60	6568.0	0.859
2.389	61.660	244.72	7252.8	0.868
2.402	62.460	246.70	7868.0	0.880
2.420	63.256	249.22	8751.2	0.901
2.442	63.760	251.90	11576.0	0.914
2.404	62.474	246.82	7959.1	0.882
0.014	0.643	1.88	787.5	0.013

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