



**SEOUL SEMICONDUCTOR**

# **150 lm/W Reference guide**

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***SAW8Q24D (MJT 5630D 2-cell)***

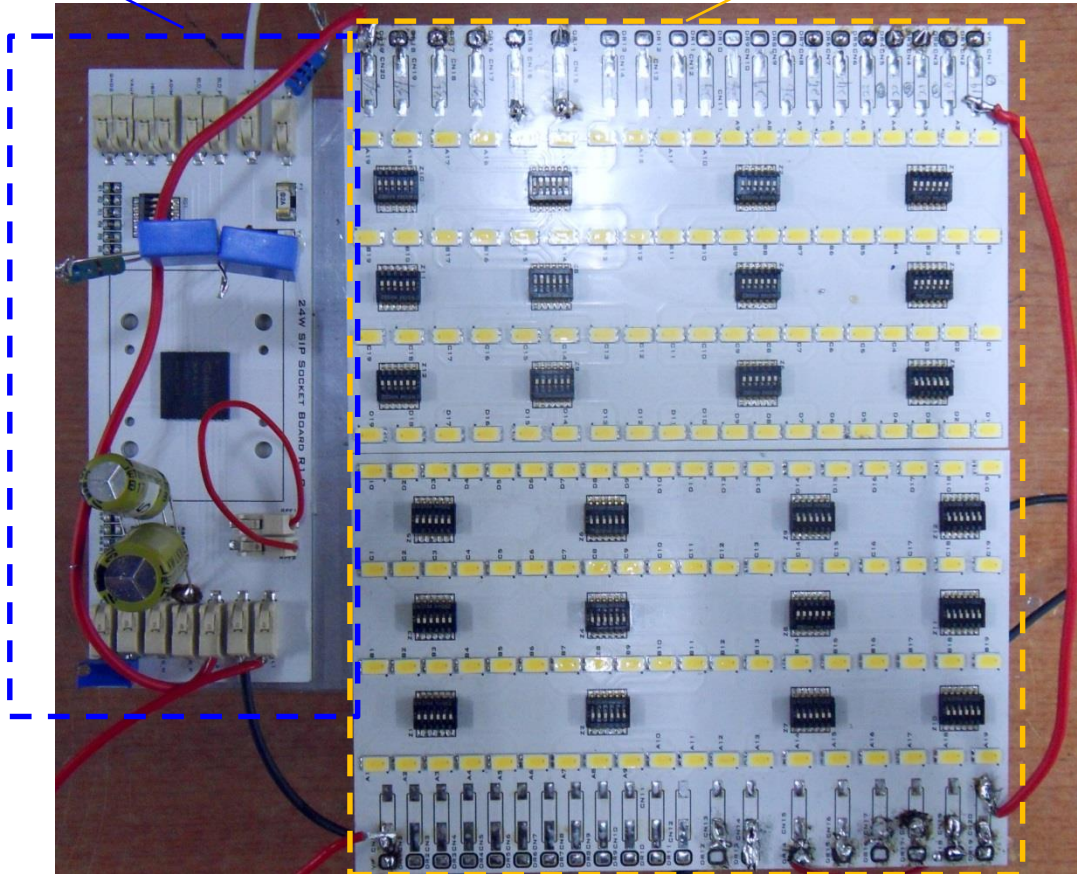
**Driver sales team**

2017.08.11

# 150 Im/W Array Test Module

Circuit Master board

LED Master board



# 150 lm/W Array Test

1. Test Voltage: 230V / 50Hz
2. Test Condition : Cool Lumen(@25°C, Pulse Test)
3. Test Device : Integrating Sphere
4. LED : SAW8Q24D(MJT 5630D 2-cell) – U0C32Z54

**Table. 1 Test result for Electro-Optical Performance(Total LED quantity : 74ea)**

LED Quantity						R1	RS	C2	Test results						
LED	Step 1	Step 2	Series	Parallel	Total Q'ty				%Flicker	Voltage	current	power	PF	lm	lm/W
5630D	11	26	37	2	74	0	3.9	50nF	22.5	230	100.0	20.13	0.874	2963	147.2
5630D	12	25	37	2	74	0	3.9	50nF	18.1	230	99.7	20.20	0.880	3003	148.7
5630D	13	24	37	2	74	0	3.9	50nF	14.3	230	99.4	20.25	0.886	3057	151.0
5630D	14	23	37	2	74	0	3.9	50nF	11.7	230	99.2	20.36	0.891	3085	151.5
5630D	15	22	37	2	74	0	3.9	50nF	8.0	230	98.3	20.25	0.900	3106	153.4
5630D	16	21	37	2	74	0	3.9	50nF	14.2	230	96.3	19.89	0.902	3058	153.7
5630D	17	20	37	2	74	0	3.9	50nF	27.5	230	97.9	20.28	0.900	3070	151.4
5630D	14	24	38	2	76	0	3.9	50nF	12.5	230	102.1	20.92	0.889	3115	148.9
5630D	15	23	38	2	76	0	3.9	50nF	18.7	230	99.8	20.48	0.891	3079	150.3
5630D	16	22	38	2	76	0	3.9	50nF	28.7	230	98.3	20.21	0.893	3023	149.5
5630D	17	21	38	2	76	0	3.9	50nF	39.3	230	98.9	20.43	0.903	3000	146.8

**5630D PKG must is operated under 70mA due to LM80**

**The minimum number of LEDs required to achieve 3000 lm is 74ea, where Efficacy is 154m/W.**

# 150 lm/W Array Test

1. Test Voltage: 120V / 60Hz
2. Test Condition : Cool Lumen(@25°C, Pulse Test)
3. Test Device : Integrating Sphere
4. LED : SAW8Q24D(MJT 5630D 2-cell) – U0C32Z54

Table. 1 Test result for Electro-Optical Performance(Total LED quantity : 74ea)

LED Quantity						RPF	RS	Cap[uF]	Test results						
LED	Step 1	Step 2	Series	Parallel	Total Q'ty				%Flicker	Voltage	current	power	PF	lm	lm/W
5630D	4	14	18	4	72	0	2.2	100uF	22.5	120	213.3	21.08	0.824	2916	138.3
5630D	5	13	18	4	72	0	2.2	100uF	18.1	120	210.1	21.18	0.840	3006	142.0
5630D	6	12	18	4	72	0	2.2	100uF	14.3	120	205.9	21.18	0.857	3081	145.5
5630D	7	11	18	4	72	0	2.2	100uF	11.7	120	203.0	21.24	0.872	3166	149.1
5630D	8	10	18	4	72	0	2.2	100uF	8.0	120	194.7	20.95	0.896	3095	147.7
5630D	5	14	19	4	76	0	2.2	100uF	14.2	120	209.1	21.05	0.839	3125	148.5
5630D	6	13	19	4	76	0	2.2	100uF	27.5	120	205.9	21.10	0.854	3211	152.2
5630D	7	12	19	4	76	0	2.2	100uF	12.5	120	199.9	21.11	0.880	3204	151.8
5630D	8	11	19	4	76	0	2.2	100uF	18.7	120	193.0	21.08	0.910	3086	146.4

5630D PKG must is operated under 70mA due to LM80

The minimum number of LEDs required to achieve 3000 lm is 74ea, where Efficacy is 152lm/W.



**THANK YOU!**

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