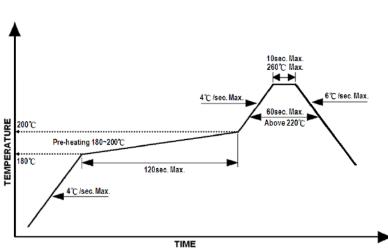
## 5630 Package Power Warm White Surface Mount Device

Part Number: 62-217BSW1C2

## Package outlines & Re-flow Profile



## ■Reflow Temp/Time



#### ■Soldering iron

Basic spec is  $\leq$  5sec when 260°C. If temperature is higher, time should be shorter (+10°C  $\rightarrow$  -1sec ). Power dissipation of iron should be smaller than 15W, and temperatures should be controllable . Surface temperature of the device should be under 230°C.

ITEM	MATERIALS
Resin (mold)	Ероху
Lens color	Yellow Diffused
Printed circuit board	BT
Emitted color	Warm White
Material	InGaN

### NOTES:

- 1. All dimensions are in millimeters (inches);
- 2. Tolerances are  $\pm 0.1$ mm (0.004inch) unless otherwise noted.
- 3. Polarity referring onto the cathode mark is reversed on the red.

Part Number: 62-217BSW1C2

(Pulse Width  $\leq$  10msec, and duty  $\leq$ 1/10)

ELECTRO-OPTICAL CHARACTERISTICS (T)							
Parameter	Test	Symbol	'	Valu	Unit		
T drameter	Condition	Symbol	MIN.	TYP.	MAX.		
Viewing angle at 50% I <sub>√</sub>	I <sub>F</sub> =150mA	2 <i>\theta</i> 1/2		120		Deg	
Forward voltage	I <sub>F</sub> =150mA	V <sub>F</sub>	2.8		3.5	V	
Color Temperature	I <sub>F</sub> =150mA	ССТ	2750	3000	3250	K	
Luminous Flux	I <sub>F</sub> =150mA	Flux		52		lm	
Pulse Forward Current (Pulse Width < 10msec, and duty < 1/10)		I <sub>FP</sub>		300		mA	

Absolute maximum ratings			(TA=25°C)
Parameter	Symbol	Value	Unit
Forward current	I <sub>F</sub>	150	mA
Reverse voltage	V <sub>R</sub>	5	V
Reverse current	I <sub>R</sub>	1	μА
Power dissipation	P <sub>D</sub>	585	mW
Operating temperature range	Тор	-30 ~+80	$^{\circ}\! \mathbb{C}$
Storage temperature range	Tstg	-40 ~+85	$^{\circ}$ C

Part Number: 62-217BSW1C2

## Bin Code

## Iv Bin:

Color	Bin Code	Spec. Range			
	MC2	15.8~18.1Im			
	MD2	16.9 ~18.1lm			
	NA1	18.1~19.3lm			
	NB1	19.3~20.6lm			
	NC2	20.6~22.0lm			
	ND2	22.0~23.5lm			
	AP1	23.4~25.1Im			
	BP1	25.1~26.8m			
	CP2	26.8~28.6m			
	DP2	28.6~30.4m			
White	QA1	30.4~32.6m			
Wille	QB1	32.6~34.9m			
	QC2	34.9~37.2m			
	QD2	37.2~39.8m			
	RA1	39.8~42.5m			
	RB1	42.5~45.3m			
	RC2	45.3~48.4m			
	RD2	48.4~51.7m			
	SA3	51.7~55.2m			
	SB3	55.2~58.9m			
	SC4	58.9~62.4m			
	SD4	62.4~67.2m			

Luminous Intensity Measurement Allowance is ±7%

Color Ter	nperature	lv Bin		
Min.	Max.	Min.	Тур.	Max.
2750K	3750K	RD2	SA3	SB3
3750K	6750K	RB1	RC2	RD2
6750K	9500K	RD2	SA3	SB3

### Vf Bin

Spec. Range
2.8-2.9V
2.9-3.0V
3.0-3.1V
3.1-3.2V
3.2-3.3V
3.3-3.4V
3.4-3.5V
_

Forward Voltage Measurement Allowance is ±0.05V

Part Number: 62-217BSW1C2

## Color Rank

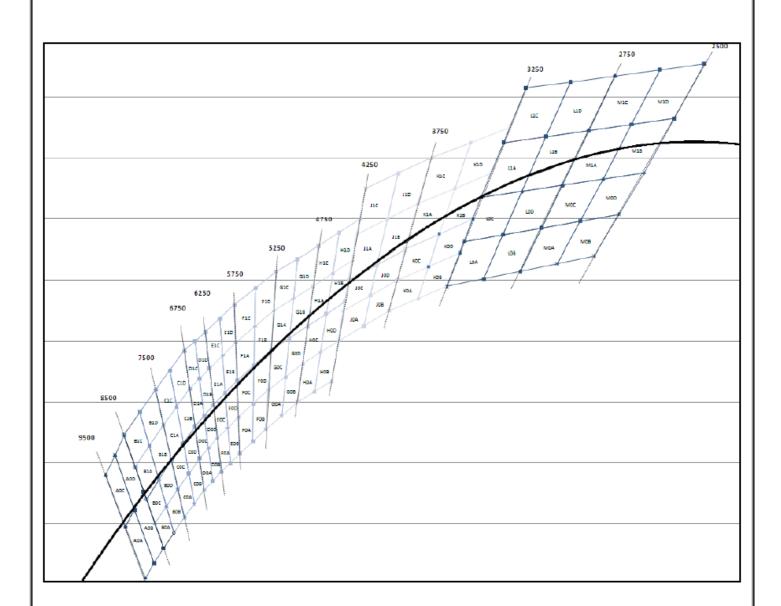
The color of the																
1.00	BOA	8000~8500K	B1A	8000~8500K	B0B	7500~8000k	818	7500~8000k	B0C	8000~8500k	81C	8000~8500k	B0D	7500~8000k	B1D	7500~8000k
1-14   1-15	ж			V				Y								Y
Section   Sect																
100																
Color	0.302	0.287	0.29825	0.3045	0.306	0.292	0.301	0.311	0.299125	0.29575	0.292625	0.315585	0.3035		0.298	
1.50	0.298	0.282	0.2915	0.298	0.302	0.287	0.29625	0.3045	0.2948	0.29	0.28725	0.30863	0.299125	0.29575	0.252625	0.315565
1985   1982   1985   1986	C0A	7000~7500K	G1A	7000~7500K	COB	0750~7000K	C18	0750~7000K	COC	7000~7500K	G1G	7000~7500K	COD	0750~7000K	C1D	0750~7000K
1000   1000													X			
2007000   20070   20																
1995   C. 1996																
Section   Sect																
Y	0.308	0.292	0.301	0.311	0.30976	0.2965	0.3065	0.3165	0.3036	0.3016	0.298	0.3225	0.307626	0.3065	0.303	0.3285
11175   0.117	D0A	8500-8750K	D1A	8500-8750K	DOB	6250-6500K	D1B	6250-6500K	DOC .	8500-8750K	D1C	8500-8750K	DOD	6250-6500K	D1D	6250-6500K
STATE   Color   Colo										V						
3-248    0-21478																
2019   2.11																
								0.329								
X	0.3136	0.301	0.31	0.322	0.3167	0.304	0.3136	0.3266	0.31176	0.3116	0.308	0.3345	0.3161	0.31476	0.31176	0.33776
STATE   STAT	ECA	8000K~8250K	E1A	8000K~8250K	EDB	5750~6000K	E18	5750~6000K	EOC	8000K-6250K	E1C	8000K~8250K	E0D	5750×6000K	E1D	6750~6000K
23   23   23   23   23   23   23   23	X									V				V		
13225   12215   1232																
Color	0.3225	0.3215	0.3205	0.34525	0.3265	0.325	0.3255	0.3495	0.3215	0.333	0.3195	0.3575	0.328	0.337	0.325	0.382
Fig.	0.3235													0.325	0.3255	
1,000   1,00	0.32	0.307	0.317	0.329	0.3235	0.31	0.3215	0.333	0.3185	0.318	0.3155	0.341	0.3225	0.3215	0.3205	0.34525
0.327	F0A	5500~5750K	F1A	5500~5750K	FDB	5250~5500K	F18	5250~5500K	F0C	5500~5750K	F1C	5500~5750K	F0D	5250~5500K	F1D	5250~5500K
20288   0.12						V 0.147		Y 242		V 0.005		V 0.0105				
0.3222   0.3225   0.3225   0.3247   0.338   0.334   0.34   0.35   0.322   0.325   0.3235   0.325   0.324   0.34   0.34   0.34   0.35   0.327   0.3235   0.32																9.55 115
Q327   Q313   Q328   Q327	0.33225	0.3295	0.33275	0.35475	0.338	0.334	0.34	0.36	0.3325	0.342	0.333	0.3675	0.339	0.347	0.341	0.373
SA																
Y	0.327	0.313	0.320	0.331	0.332	9.517	0.3323	0.542	9.5200	0.520	0.5200	0.5450	0.55225	0.3230	0.55275	0.33475
0.327		5000K~5250K				4750~5000K			G0C		G1C					4750~5000K
Q388   Q384   Q384   Q384   Q382   Q3845   Q3825   Q385   Q385   Q385   Q387   Q381   Q387   Q381   Q385												_				
Q341   Q325   Q348   Q351   Q149   Q331   Q325   Q345   Q345   Q335   Q346   Q347   Q346   Q347   Q346																
0.337   0.321   0.338   0.347   0.348   0.3205   0.340   0.3511   0.338   0.344   0.34   0.30   0.3440   0.33820   0.3410   0.3041   0.3							0.355	0.368					0.353		0.357	
HGA																
Y				•				•			•					•
Y	HOA	4500~4750K	H1A	4500×4750K	HOB	4250~4500K	H1B	4250~4500K	H0C	4500~4750K	H1G	4500~4750K	HOD	4250~4500K	H1D	4250~4500K
0.351	x	V	×	V	×	ν	x	V	X	ν	×	γ	X	V	x	V
0.35775   0.34025   0.35225   0.35225   0.3525   0.3555   0.355   0.								0.359								
0.3585   0.3315   0.38	W. W. V.		0.000		0.000110				0.000	2.222	7.72		2.22	2.22		
30A   4500-4259K   J1A   4500-4260K   J2B   1750-4000K   J1B   2750-4000K   J1C   4500-4250K   J1C   4500-	0.3555	0.3335	0.36	0.359	0.362	0.337	0.367	0.383	0.35775	0.34625	0.3625	0.37225	0.3645	0.35	0.37	0.3765
X	0.349	0.33	0.353	0.355	0.3565	0.3335	0.38	0.359	0.351	0.3425	0.355	0.368	0.35775	0.34825	0.3825	0.37225
0.2845	JOA	4000~4250K	J1A	4000~4260K	JOB	3750~4000K	J1B	3750~4000K	J0C	4000~4250K	J1C	4000~4250K	J0D	3750~4000K	J1D	3750~4000K
0.3000				У						y		,			Х	У
0.377676																
D.3845   D.35		0.385		0.39						0.375					0.4	0.41
X	0.37425	0.355	0.37925	0.375	0.384	0.38	0.39	0.38	0.37875	0.385	0.383375	0.39	0.387	0.37	0.395	0.395
X	0.3040	0.30	0.3080	U.5/	0.31423	0.300	0.3/3/20	0.5/5	0.3000	0.50	0.311/9	U.360	0.3/0/5	0.300	v.3633/3	0.35
0.384	KOA			3500×3750K						3500×3750K				3250~3500K	KID	3250~3500K
0.387		_		_	75			Y		· ·	2	_	-	Y		_
0.399   0.5745   0.409   0.4   0.411   0.379   0.4228   0.4047   0.403   0.385   0.415   0.415   0.416   0.39   0.43   0.42   0.339   0.385   0.408   0.408   0.388   0.408   0.388   0.408   0.388   0.408   0.388   0.408   0.388   0.408   0.388   0.408   0.388   0.408   0.389   0.387   0.387   0.395   0.384   0.409   0.4   0.411   0.279   0.423   0.405   0.408   0.389   0.384   0.408   0.389   0.385   0.384   0.408   0.399   0.3745   0.409   0.4   0.411   0.279   0.423   0.405   0.408   0.408   0.408   0.389   0.3745   0.408   0.399   0.3745   0.409   0.4   0.408   0.399   0.3745   0.409   0.4   0.408   0.																
D384																
LOA 2000-3250K LOB 2750-3000K LOC 3000-3250K LOD 2750-3000K L1A 2000-3250K L1B 2750-3250K L1C 3000-3250K L1D 2750-3000K X Y X Y X Y X Y X Y X Y X Y X Y X Y X																
X	V.301			2.00		V.201	V.100				2.000	2.200	0.000		v. 100	
0.40800 0.388 0.42000 0.37050 0.41250 0.38250 0.42725 0.38478 0.419 0.397 0.4348 0.399 0.42750 0.41500 0.44378 0.4170 0.41250 0.38250 0.42725 0.38478 0.4190 0.3970 0.4348 0.399 0.42760 0.41500 0.44378 0.4170 0.4800				2750~3000K		3000~3250K				3000~3250K		2750~3250K				2760~3000K
0.41250 0.38250 0.42725 0.38475 0.44200 0.38700 0.4945 0.3990 0.49 0.4975 0.41500 0.44375 0.41700 0.49800 0.43300 0.45300 0.45300 0.42725 0.38475 0.44200 0.38700 0.43205 0.49100 0.49700 0.40000 0.40	0.40600		0.42000	0.37050	0.41250	0.38250	0.42725		0.419	0.397	0.4345	0.399	0.42750	0.41500		0.417
0.42000   0.27080   0.42400   0.37240   0.42728   0.38475   0.442   0.387   0.42480   0.38990   0.46000   0.40100   0.44175   0.4170   0.48000   0.41900   0.40000   0.3088   0.42000   0.37080   0.41200   0.38200   0.42720   0.38475   0.418   0.397   0.4340   0.389   0.42720   0.41900   0.41900   0.4375   0.4170   0	0.41250	0.38250	0.42725	0.38475	0.41900	0.39700	0.4345	0.399	0.42750	0.41500	0.44375	0.41700	0.43800	0.43300	0.45300	0.43500
0.40000 0.308 0.42000 0.37050 0.41200 0.38250 0.42725 0.38475 0.419 0.397 0.4345 0.399 0.42750 0.41900 0.44375 0.417  MIGA 2000-2750K MOB 2250-2500K MOB 2250-2750K MID 2250-2500K MID 225																
MOA, 2500-2750K M0B 2250-2500K M0C 2500-2750K M0D 2250-2500K M1A 2500-2750K M1B 2250-2500K M1C 2500-2750K M1D 2250-2500K M1D 2250-2500K M1B 2250-2500K M1C 2500-2750K M1D 2250-2500K M1D 2250-2500K M1D 2250-2500K M1D 2250-2500K M1D 2500-2500K M1D 2																
X         Y         X																
0.434 0.373 0.446 0.3755 0.442 0.367 0.48675 0.38925 0.45 0.4010 0.48550 0.4030 0.48500 0.41900 0.47625 0.421 0.44200 0.38700 0.40075 0.38925 0.40000 0.40100 0.40550 0.40300 0.40075 0.38925 0.47150 0.39150 0.46550 0.40300 0.40000 0.47625 0.42100 0.47625 0.42100 0.47000 0.43700 0.48700 0.43900 0.45675 0.38925 0.47150 0.39150 0.46550 0.40300 0.48500 0.40500 0.47625 0.42100 0.49250 0.49250 0.42100 0.49250						2500~2750K				2500~2750K		2250~2500K			MID	2250~2500K
0.44200 0.38700 0.40075 0.38925 0.40000 0.40100 0.40000 0.40000 0.41000 0.41000 0.47025 0.42100 0.47000 0.43700 0.48700 0.43900 0.45675 0.38925 0.47160 0.39160 0.46850 0.40000 0.40000 0.40000 0.47025 0.42100 0.40200 0.4200 0.4200 0.43700 0.60400 0.50400 0.40000 0.47025 0.42100 0.40000 0.47025 0.4200 0.40000 0.47025 0.42100 0.40000 0.40000 0.47025 0.42100 0.40000 0.47025 0.42100 0.40000 0.47025 0.42100 0.40000 0.47025 0.42100 0.40000 0			_			0.387				0.401		0.40300			0.47825	0.421
0.44800 0.37550 0.40200 0.37800 0.4075 0.38525 0.47150 0.39150 0.40550 0.40300 0.48100 0.40500 0.47625 0.42100 0.49250 0.42300			0.45075	0.38925												
							<ul> <li>(2.430100)</li> </ul>				0.49250	0.42300	11 490 (00)	11 40 (00 (01))		0.44100
													0.47025	0.42100		

Note: It maintains a tolerance of x, y ±0.005



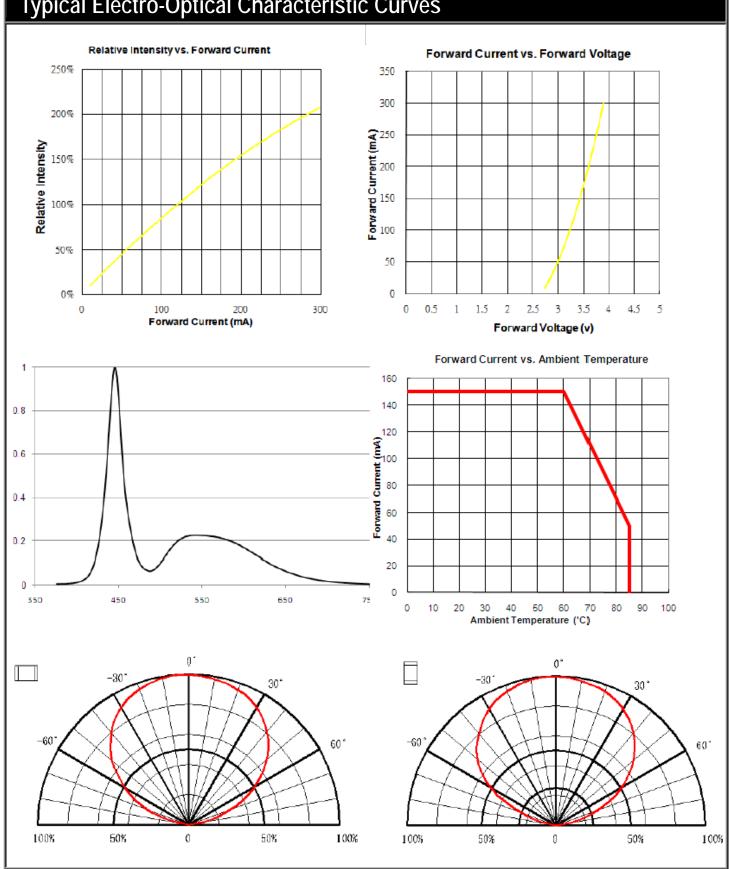
Part Number: 62-217BSW1C2

## **CIE Chromaticity Diagram**



Part Number: 62-217BSW1C2

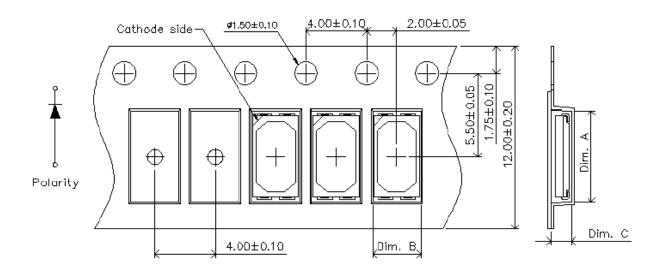
## Typical Electro-Optical Characteristic Curves



Part Number: 62-217BSW1C2

## Packaging Tape, Reel, and Packing Model

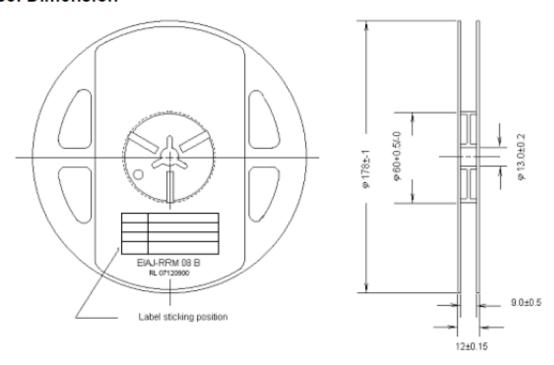
## **Tape Dimension**



Part No.	Dim. A	Dim. B	Dim. C	Q'ty/Reel
HT-T5301	6.0±0.1	3.2±0.1	1.1±0.1	2K

Unit: mm

### **Reel Dimension**



Part Number: 62-217BSW1C2

#### **Precautions For Use**

### 1. Over-current proof

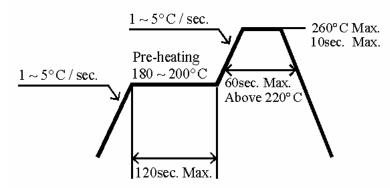
Customer must apply resistors for protection, otherwise slight voltage shift will cause big current change (Burn out will happen).

### 2. Storage

- 2.1 Do not open moisture proof bag before the products are ready to use.
- 2.2 Before opening the package, the LEDs should be kept at 30°C or less and 90%RH or less.
- 2.3 The LEDs should be used within a year.
- 2.4 After opening the package, the LEDs should be kept at 30°C or less and 70%RH or less.
- 2.5 The LEDs should be used within 168 hours (7 days) after opening the package.
- 2.6 If the moisture absorbent material (silica gel) has faded away or the LEDs have exceeded the storage time, baking treatment should be performed using the following conditions. Baking treatment: 60±5°C for 24 hours.

### 3. Soldering Condition

3.1 Pb-free solder temperature profile



- 3.2 Reflow soldering should not be done more than two times.
- 3.3 When soldering, do not put stress on the LEDs during heating.
- 3.4 After soldering, do not warp the circuit board.

#### 4. Soldering Iron

Each terminal is to go to the tip of soldering iron temperature less than 280°C for 3 seconds within once in less than soldering iron capacity 25W. Leave two seconds and more intervals, and do soldering of each terminal. Be careful because the damage of the product is often started at the time of the hand solder.