

# S2810UTW (20mA)

# Side View 1.2x2.8x1.0 White

## Absolute Maximum Ratings at TA=25°C

### Features

- Small Size (1.2\*2.8\*1.0mm)
- Industry Standard Footprint
- Compatible in 8mm tape on 178mm Diameter Reels
- Low Profile
- Several Colors Available

REVERSE VOLTAGE (<100 μ A).....	5.0V
D.C.FORWARD CURRENT.....	25mA
PULSE CURRENT (1/10 DUTY CYCLE,0.1 ms PULSE WIDTH)...	100 mA
OPERATING TEMPERATURE RANGE.....	-30 °C TO +85°C
STORAGE TEMPERATURE RANGE.....	-40 °C TO +100°C
LEAD SOLDERING TEMP. (1.6mm FROM BODY).....	250°C FOR 3 SEC

### PRELIMINARY

### Precautions :

These products are sensitive to static electricity; high standard of care must be fully taken when handling them. Particularly if an over-voltage that exceeds the Absolute maximum Rating of these products were applied, the overflow energy will cause damage to and possibly result in destruction of these products. Buyer shall take absolute secure countermeasures against static electricity and surge when handling these products.

## Electrical/Optical Characteristics at TA=25°C

PART NUMBER	LED CHIP		WAVELENGTH Hue @ 20 mA (nm)		FORWARD VOLTAGE @20mA(V)		Reverse Current	LUMINOUS INTENSITY @20mA(mcd)	
	MATERIAL	EMITTING COLOR	X	Y	TYP.	MAX.	IR VR=5[V]	MIN.	MAX.
S2810UTW (20mA)	InGaN	White	0.31 ±0.03	0.30 ±0.03	3.2	3.8	50 μ A	500	800

### LUMINOUS INTENSITY @20mA(mcd)

COLOR	SUPER WHITE	
ITEM	IV 20mA(mcd)	
BIN	MIN	MAX
S1	500	570
S2	570	650
S3	650	750

Tolerance of the Luminous Intensity : ±10%

BIN	RANK				
B1	X	0.283	0.285	0.296	0.295
	Y	0.255	0.268	0.282	0.270
B2	X	0.295	0.296	0.308	0.306
	Y	0.270	0.282	0.297	0.284
B3	X	0.306	0.308	0.320	0.318
	Y	0.284	0.297	0.312	0.299

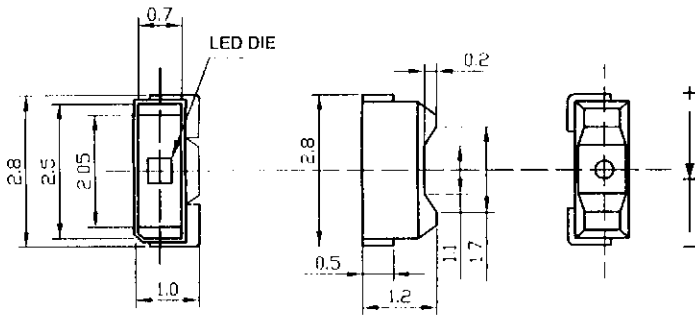
### COLOR RANKS(IF=20mA.Ta=25 °C)

BIN	RANK				
B4	X	0.285	0.286	0.298	0.296
	Y	0.268	0.28	0.295	0.282
B5	X	0.296	0.298	0.31	0.308
	Y	0.282	0.295	0.31	0.297
B6	X	0.308	0.31	0.321	0.32
	Y	0.297	0.31	0.324	0.312
B7	X	0.286	0.288	0.30	0.298
	Y	0.28	0.293	0.308	0.295
B8	X	0.298	0.30	0.311	0.31
	Y	0.295	0.308	0.322	0.31
B9	X	0.31	0.311	0.323	0.321
	Y	0.31	0.322	0.337	0.324

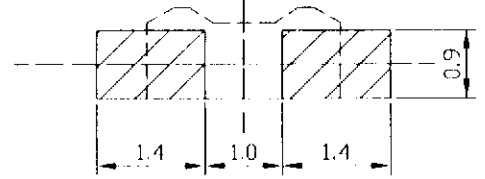
Tolerance of the Luminous Intensity : ±0.008

S2810UTW

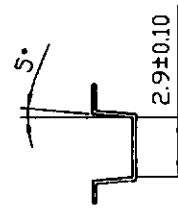
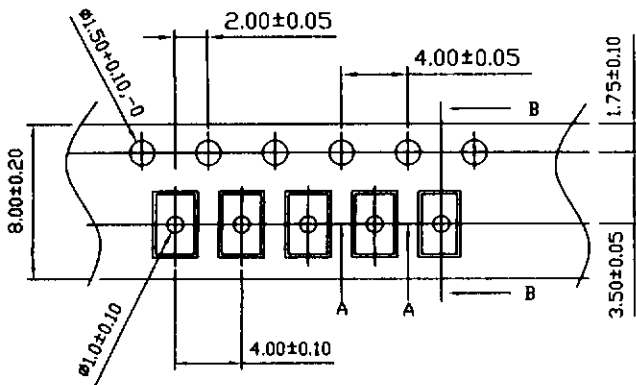
SMD 1.2X2.8X1.0 WHITE



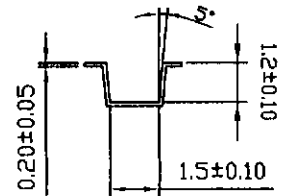
The following soldering patterns are recommended for reflow soldering.



Dimensions. (unit : mm)

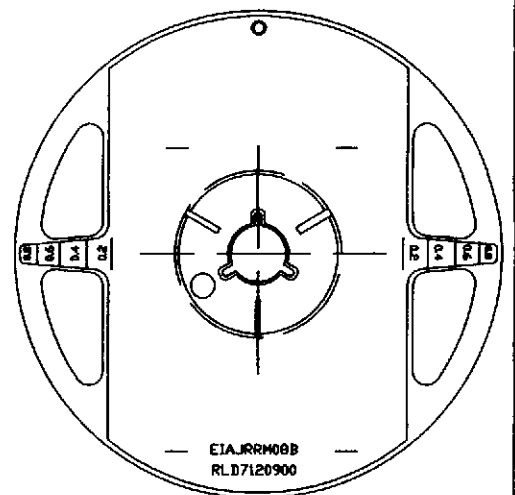
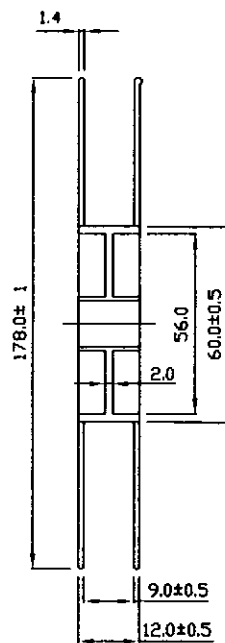
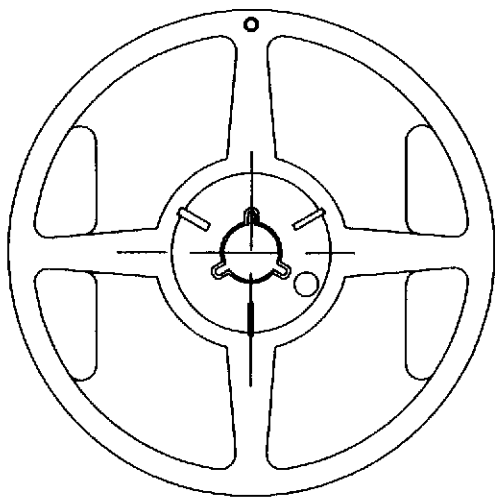


SEC: B-B



SEC: A-A

Reel & Packing specification.



# SURFACE MOUNT CHIP LED SPECIFICATION

## Intensity And Color Bin Limits

COMMODITY: SURFACE MOUNT CHIP LED  
 DEVICE NUMBER: S2810UTW(20mA)

Bin Limits:

LUMINOUS INTENSITY @20mA(mcd)

COLOR	SUPER WHITE	
ITEM	IV 20mA(mcd)	
BIN	MIN	MAX
S1	500	570
S2	570	650
S3	650	750

LUMINOUS INTENSITY @20mA(VF)

COLOR	SUPER WHITE	
ITEM	VF 20mA(V)	
BIN	MIN	MAX
1	3.0	3.2
2	3.2	3.4
3	3.4	3.6
4	3.6	3.8
5	3.8	4.0

COLOR RANKS(IF=20mA, Ta=25 °C)

BIN		RANK			
		X	0.283	0.285	0.296
B1	Y	0.255	0.268	0.282	0.270
	X	0.295	0.296	0.308	0.306
B2	Y	0.270	0.282	0.297	0.284
	X	0.306	0.308	0.320	0.318
B3	Y	0.284	0.297	0.312	0.299
	X	0.285	0.286	0.298	0.296
B4	Y	0.268	0.28	0.295	0.282
	X	0.296	0.298	0.31	0.308
B5	Y	0.282	0.295	0.31	0.297
	X	0.308	0.31	0.321	0.32
B6	Y	0.297	0.31	0.324	0.312
	X	0.286	0.288	0.30	0.298
B7	Y	0.28	0.293	0.308	0.295
	X	0.298	0.30	0.311	0.31
B8	Y	0.295	0.308	0.322	0.31
	X	0.31	0.311	0.323	0.321
B9	Y	0.31	0.322	0.337	0.324

Notes:

VF :Tolerance each Bin limit is  $\pm 15\%$

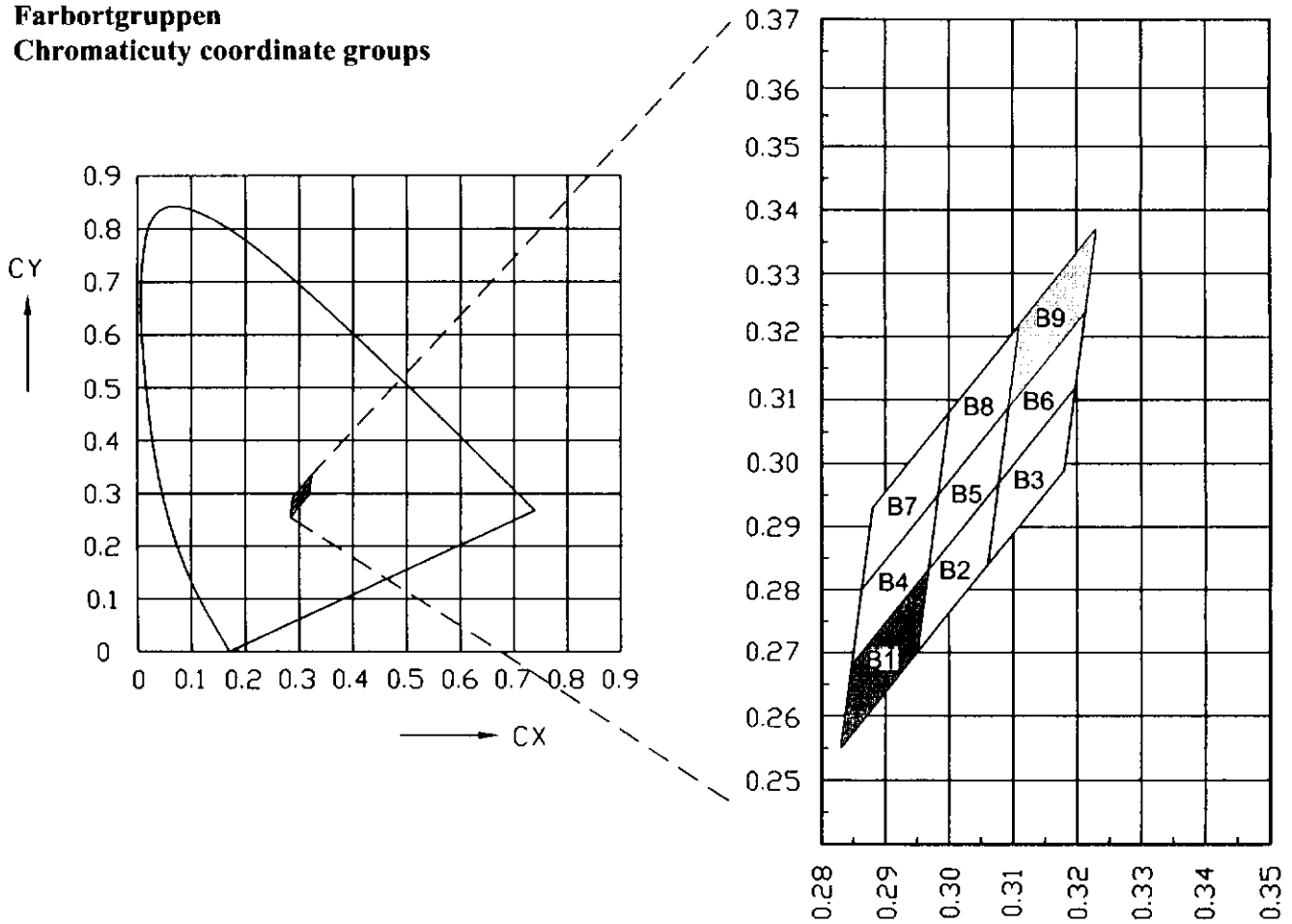
IV :Tolerance each Bin limit is  $\pm 15\%$

X.Y :Tolerance each Bin limit is  $\pm 0.01$

# S2810UTW

## 白光區塊圖

Farbortgruppen  
Chromaticity coordinate groups



BiN	RANK				
B4	X	0.285	0.286	0.298	0.296
	Y	0.268	0.28	0.295	0.282
B5	X	0.296	0.298	0.31	0.308
	Y	0.282	0.295	0.31	0.297
B6	X	0.308	0.31	0.321	0.32
	Y	0.297	0.31	0.324	0.312

BiN	RANK				BiN	RANK					
B1	X	0.283	0.285	0.296	0.295	B7	X	0.286	0.288	0.30	0.298
	Y	0.255	0.268	0.282	0.270		Y	0.28	0.293	0.308	0.295
B2	X	0.295	0.296	0.308	0.306	B8	X	0.298	0.30	0.311	0.31
	Y	0.270	0.282	0.297	0.284		Y	0.295	0.308	0.322	0.31
B3	X	0.306	0.308	0.320	0.318	B9	X	0.31	0.311	0.323	0.321
	Y	0.284	0.297	0.312	0.299		Y	0.31	0.322	0.337	0.324