

SPECIFICATION

2.8*3.5 TOP LED
White Light
Ultra Bright LED



Lead (Pb) Free Product - RoHS Compliant

Customer 客户		
Type 类别	SMD	
DESCRIPTION 规格	2835	
Part No 型号	SOL-2835X100-09	
Date 送样日期		
Amount 数量	Copy of Document 承认书份数	1 份

Approved By Customer 客户承认回签	Qualified By 核准	Form Designer 制作

SOL TECHNOLOGY AND TRADE LIMITED

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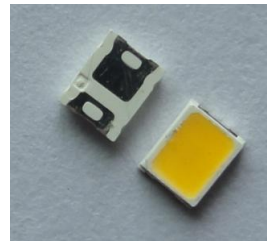
Adds:6F,8# JinYun Road ,Haishu District,Ningbo ,China

Features

- **package:** white PCT-2 package, colored diffused resin
- **feature of the device:** extremely wide viewing angle; long life time due to enhanced resin material
- **color coordinates:** x = 0.305, y = 0.31 acc. to CIE 1931 (white)
- **typ. color temperature:** 2700-6500K
- **viewing angle:** Lambertian Emitter (120°)
- **technology:** InGaN
- **grouping parameter:** luminous intensity, color coordinates
- **assembly methods:** suitable for all SMT assembly methods
- **soldering methods:** IR reflow soldering and TTW soldering
- **preconditioning:** acc. to JEDEC Level 2
- **taping:** 8 mm tape with 4000/reel, ø180 mm
- **ESD-withstand voltage:** ESD sensitive device

Applications

- outdoor displays
- backlighting (LCD, switches, keys, displays, illuminated advertising)
- interior and exterior automotive lighting
- substitution of micro incandescent lamps, reading lamps
- emergency lighting
- signal and symbol luminaire
- marker lights (e.g. steps, exit ways, etc.)



Ordering Information

Type	Color of Emission	Luminous Intensity ($I_F=100mA$)	
		Min I_V (lm)	Typ I_V (lm)
SOL-2835X100-09	White	110	130

Maximum Ratings

Parameter	Symbol	Values	Unit
Operating temperature range	T_{op}	- 40 ... + 100	°C
Storage temperature range	T_{stg}	- 40 ... + 100	°C
Junction temperature	T_j	120	°C

Forward current ($T_A=25^{\circ}\text{C}$)	I_F	100	mA
Power consumption ($T_A=25^{\circ}\text{C}$)	P_{tot}	900	mW
Surge current $t \leq 10 \mu\text{s}, D = 0.005, T_A=25^{\circ}\text{C}$	I_F	120	mA
Thermal Resistance	$R_{\text{thj-s}}$	18	$^{\circ}\text{C/W}$
Electrostatic Discharge(HBM)	ESD	1000	V
High color rendering index	R_a	80	

Note:

1. 1/10 Duty cycle,0.1ms pulse width.

Characteristics($T_A = 25^{\circ}\text{C}$)

Parameter	Symbol	Values	Unit	
Chromaticity coordinate x ($I_F = 60\text{mA}$)	x	0.305	-	
Chromaticity coordinate y ($I_F = 60\text{mA}$)	y	0.31	-	
Viewing angle at 50 % Φ_V (typ.)	2φ	120	deg.	
Forward voltage ($I_F = 60\text{mA}$)	(min.)	V_F	8.8	V
	(typ.)	V_F	9.6	V
	(max.)	V_F	10.8	V
Reverse current ($V_R=5\text{V}$)	(max.)	I_R	5	μA

Brightness Groups($I_F=100\text{mA}$)

Brightness Groups	MIN	MAX
B2	110	120
C2	120	130

Chromaticity Coordinate Groups ($I_F=100\text{ mA}$)

Group	x1	y1	x2	y2	x3	y3	x4	y4
E1	0.3006	0.2968	0.3049	0.3046	0.2994	0.3142	0.2949	0.3057
E2	0.3049	0.3046	0.3091	0.3123	0.304	0.3226	0.2994	0.3142
YA1	0.3091	0.3123	0.3134	0.3201	0.3085	0.3311	0.304	0.3226
YA2	0.3134	0.3201	0.3177	0.3279	0.313	0.3395	0.3085	0.3311
M1	0.3177	0.3279	0.3219	0.3356	0.3175	0.348	0.313	0.3395
M2	0.3219	0.3356	0.3262	0.3434	0.3221	0.3564	0.3175	0.348
M3	0.3262	0.3434	0.3304	0.3511	0.3266	0.3649	0.3221	0.3564
M4	0.3304	0.3511	0.3347	0.3589	0.3311	0.3733	0.3266	0.3649

Group Name on Label

Example: C2- M2

Brightness Group	Cie(x,y)
C2	M2

Note: No packing unit/tape ever contains more than one group for each selection.

Typical optical characteristics curves

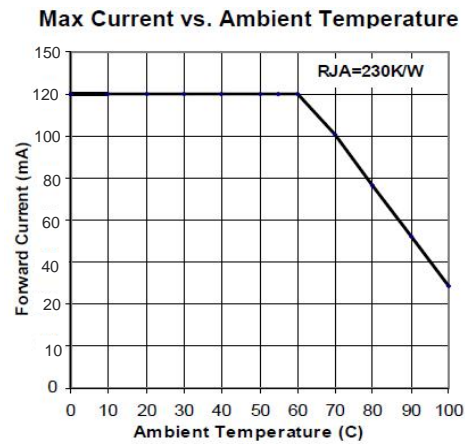
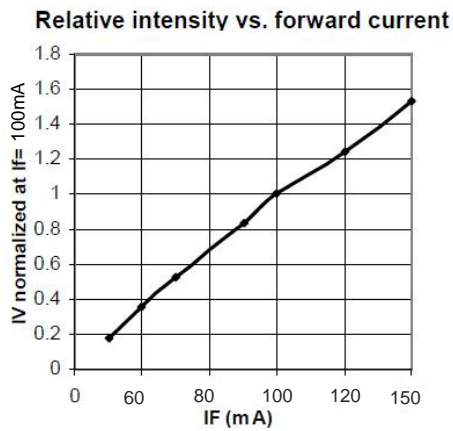
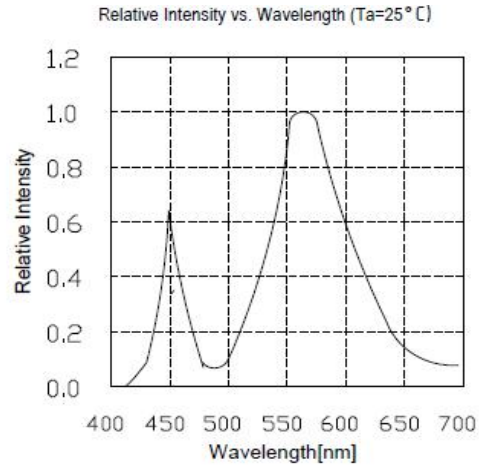
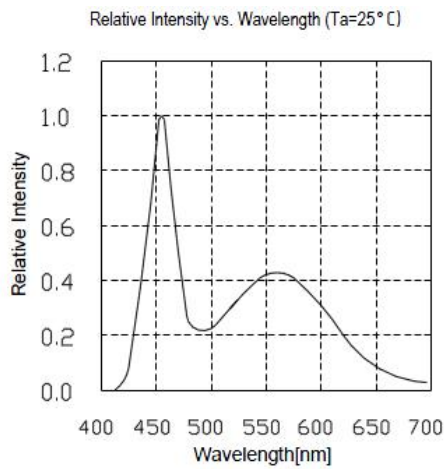
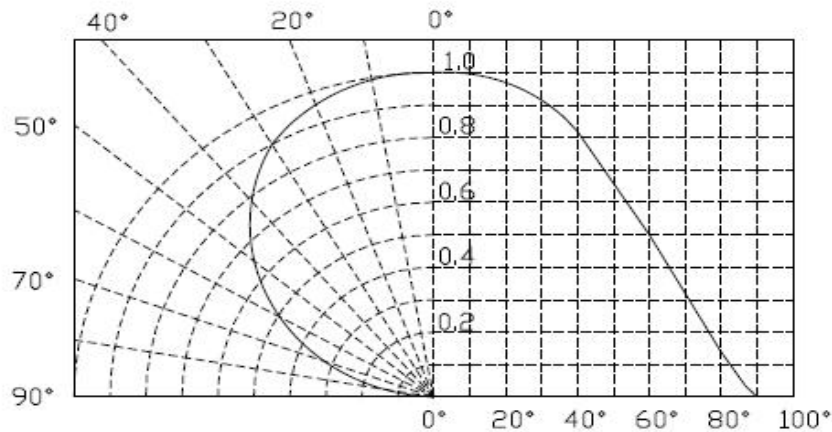
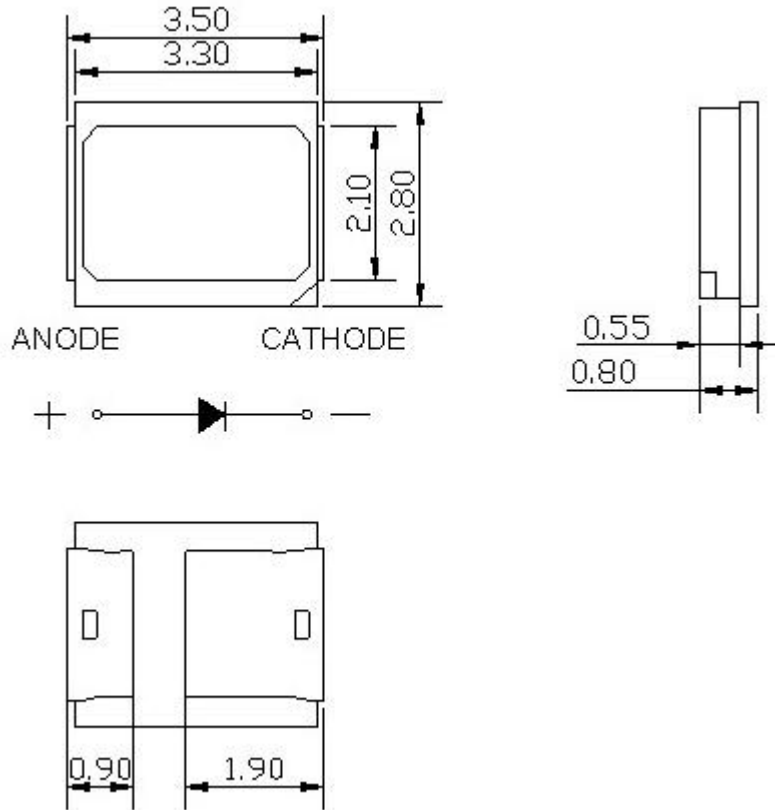


Diagram characteristics of radiation

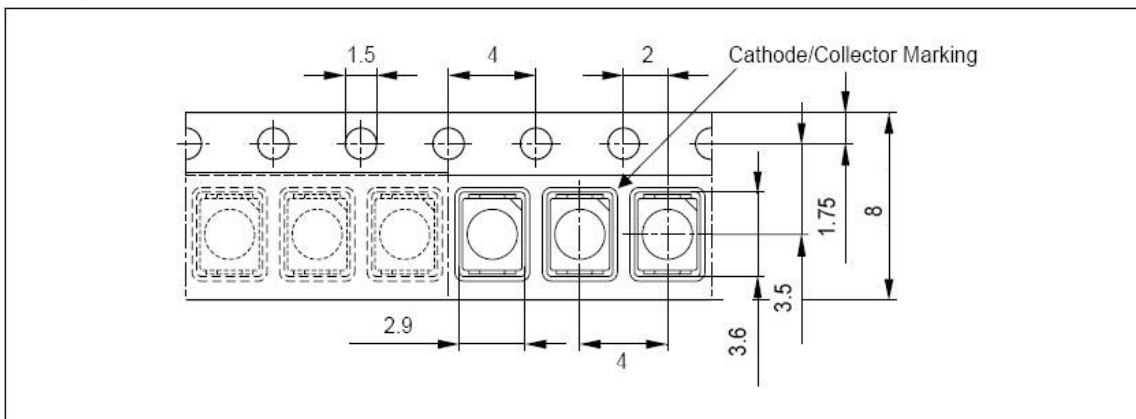


Package Outlines ($\pm 0.1\text{mm}$)



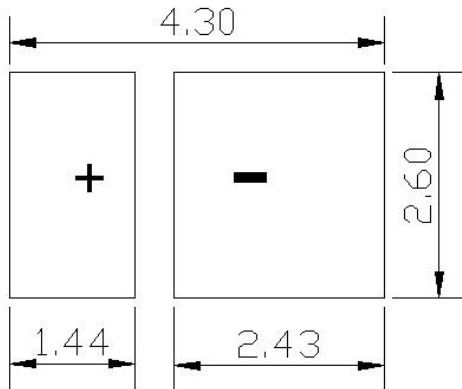
Method of Taping / Polarity and Orientation

Packing unit 4000/reel, $\varnothing 180\text{ mm}$



Recommended Solder Pad

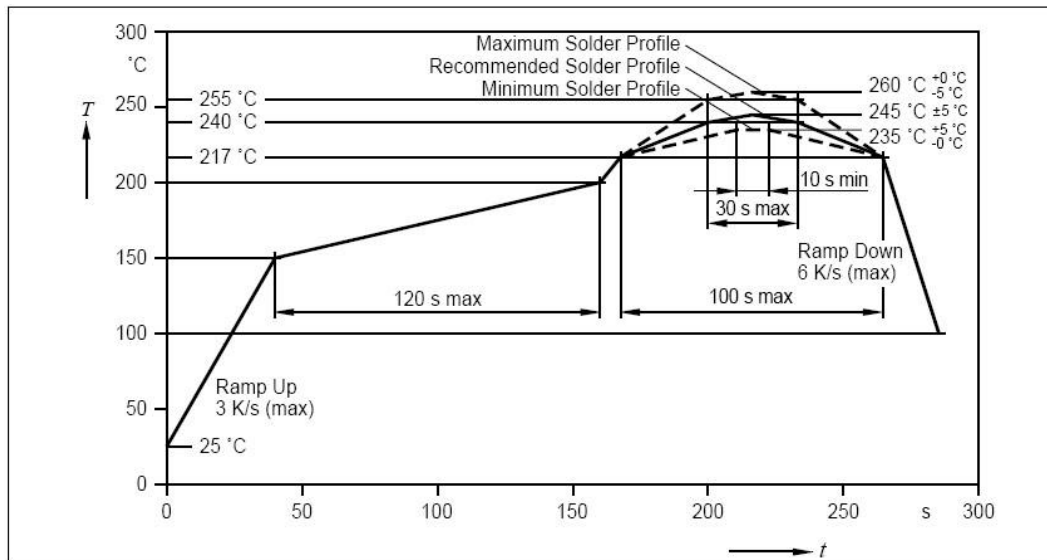
IR Reflow Soldering



UNIT:mm

Soldering Conditions Preconditioning acc. to JEDEC Level 2

IR Reflow Soldering Profile for lead free soldering (acc. to J-STD-020B)



Caution

1. Recommended storage condition: At 20°C~30°C and relative humidity 70% RH max.
2. After this bag is opened, devices that will be applied to infrared reflow, vapor-phase reflow, or equivalent soldering process must be:
 - a. Completed within 24hours.
 - b. Stored at less than 30% RH.
3. Devices require baking before mounting, if: 2a or 2b is not met.
4. If baking is required, devices must be baked under blow conditions: 12hours at 75°C ± 3°C.