LEDTECH ELECTRONICS CORP.

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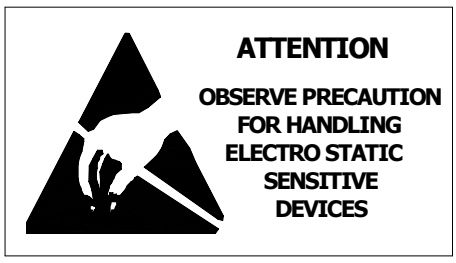
SPECIFICATION

PART NO. : LP30N3-S092

COB 50X50mm TYPE



Approved by	Checked by	Prepared by
王方波	蘇智良	顏保宏

Ledtech	LP30N3-S092	COB 50X50mm TYPE

MODIFY RECORD

TAKE EFFECT DATE	MODIFY ISSUES	REMARKS

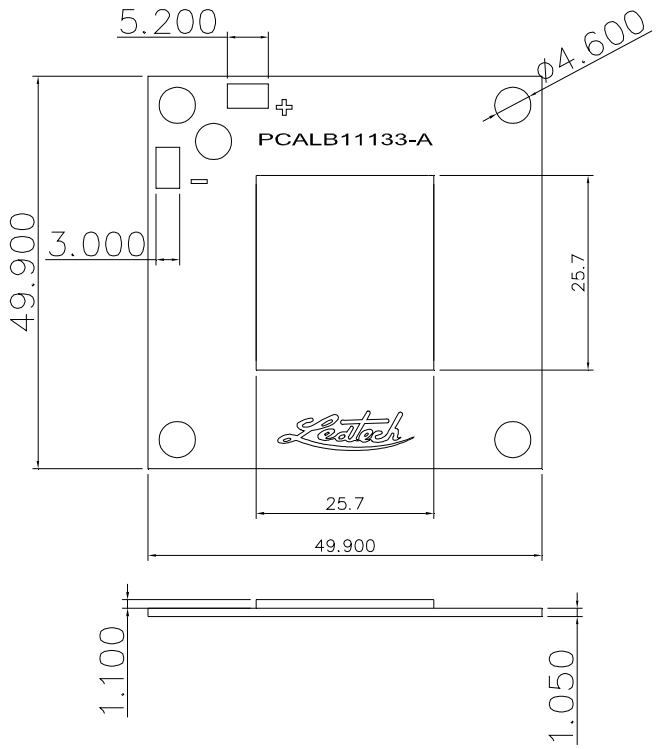
Features

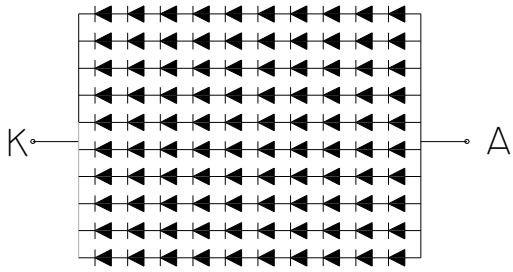
- Pb-Free soldering application
- RoHS compliance
- Multi-Chip package
- High Reliability

Application

- Bay-light module
- Indoor decorative lighting
- Illumination
- Automotive Application
- Architectural Lighting
- Indicator / Decoration

Package Dimensions





Notes:

1. All dimensions are in mm.
2. Tolerance is ±0.5mm unless otherwise noted.

Description

Part No.	LED Chip		Lens Color
	Material	Emitting Color	
LP30N3-S092	InGaN/ Sapphire	White	Yellow Diffused

Absolute Maximum Ratings at Ta=25 ℃

Parameter	Symbol	Rating	Unit
Power Dissipation	PD	32.4	W
D.C. Forward Current	If	900	mA
Peak Current(1/10Duty Cycle,0.1ms Pulse Width.)	If(Peak)	950	mA
Operating Temperature Range	Topr.	-40 to +100	℃
Storage Temperature Range	Tstg.	-40 to +100	℃
Solder Heat Resistance	SHR	Hand Soldering:300±5℃ for 3 sec.	
Electric Static Discharge Threshold (HBM)	ESD	1000	V

Electrical and Optical Characteristics:

Parameter		Symbol	Condition	Min.	Typ.	Max.	Unit
Luminous Flux		Flux	If=900mA	-	3200	-	lm
	Rank 01			2800	-	3100	
	Rank 02			3100	-	3400	
	Rank 03			3400	-	3700	
Forward Voltage		VF	If=900mA	-	30.6	-	V
	Rank U07			28	-	32	
	Rank U08			32	-	36	
Efficiency		η	If=900mA	-	118	-	lm/W
CIE Chromaticity Coordinates : X Axis		X	If=900mA	-	0.3175	-	
CIE Chromaticity Coordinates : X Axis		Y	If=900mA	-	0.3283	-	
Correlated Color Temperature		CCT	If=900mA	5750	-	6750	°K
Color Rendering Index		CRI	If=900mA	-	75	-	*Ra*
Reverse Current		Ir	Vr=5V	-	-	100	μA
Viewing Angle		2θ 1/2	If=900mA	-	120	-	deg
Thermal Resistance Junction to Case		$R\theta_{J-C}$	If=900mA	-	15	-	℃/W

Notes:

1. The datas tested by IS tester.
2. Customer's special requirements are also welcome.

Chromaticity Coordinates Specifications for Bin Grading:

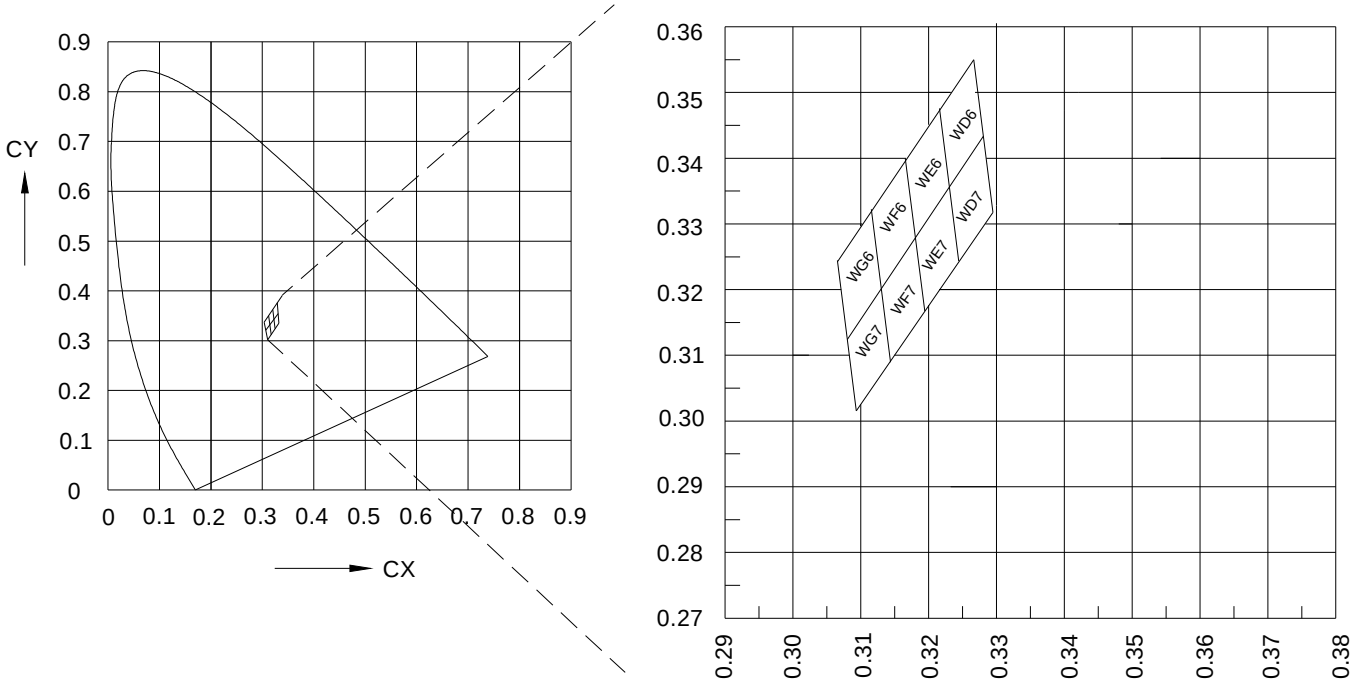
COLOR RANKS (.Ta=25℃)

WHITE

BIN	RANK					BIN	RANK				
WD6	X	0.3210	0.3264	0.3268	0.3218	WD7	X	0.3218	0.3268	0.3272	0.3227
	Y	0.3468	0.3551	0.3430	0.3353		Y	0.3353	0.3430	0.3305	0.3233
WE6	X	0.3164	0.3210	0.3218	0.3175	WE7	X	0.3175	0.3218	0.3227	0.3186
	Y	0.3395	0.3468	0.3353	0.3283		Y	0.3283	0.3353	0.3233	0.3169
WF6	X	0.3122	0.3164	0.3175	0.3136	WF7	X	0.3136	0.3175	0.3186	0.3151
	Y	0.3331	0.3395	0.3283	0.3223		Y	0.3223	0.3283	0.3169	0.3114
WG6	X	0.3085	0.3122	0.3136	0.3100	WG7	X	0.3103	0.3136	0.3151	0.3120
	Y	0.3273	0.3331	0.3223	0.3170		Y	0.3170	0.3223	0.3114	0.3064

Note: X.Y Tolerance each Bin limit is±0.01.

Chromaticity Coordinates & Bin grading diagram:



Typical Electrical/Optical Characteristic Curves

(25℃ Ambient Temperature Unless Otherwise Noted)

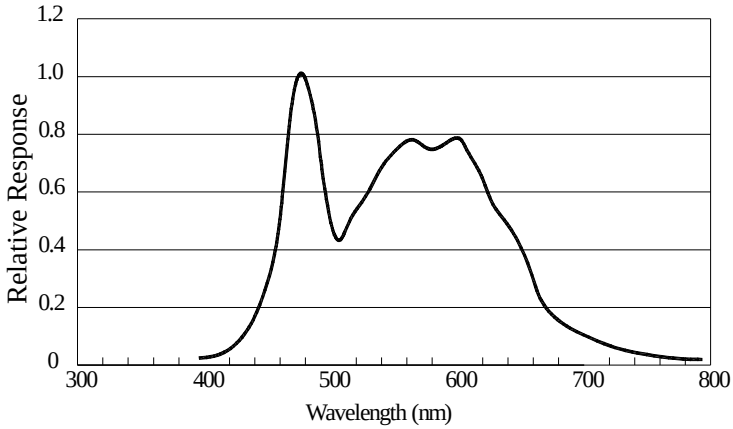
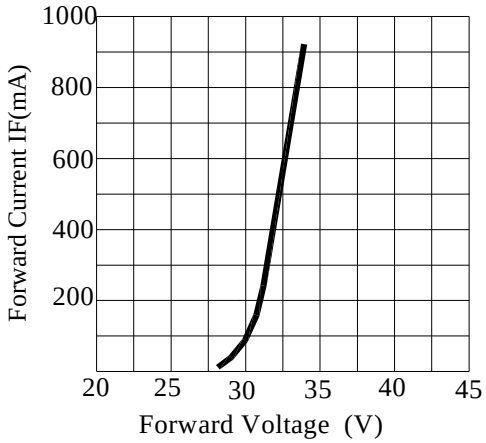
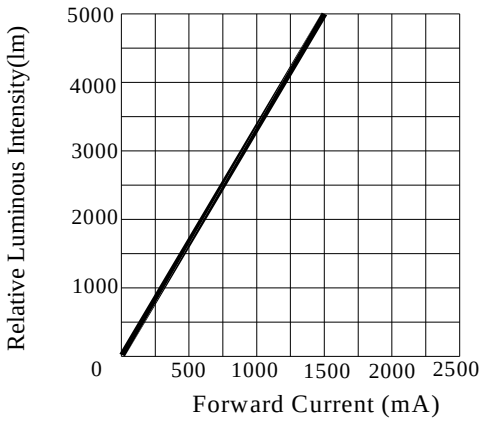


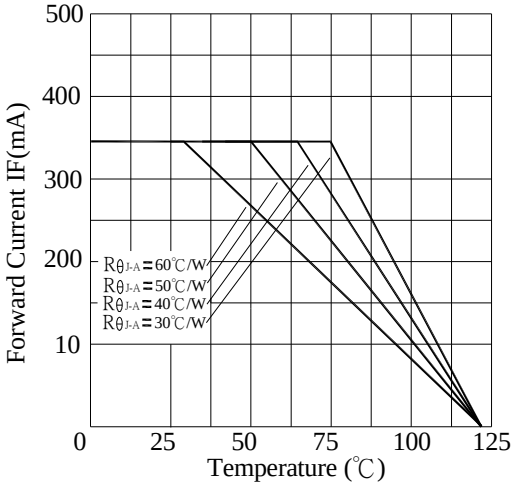
Fig.1 WHITE LED Spectrum VS. WAVELENGTH



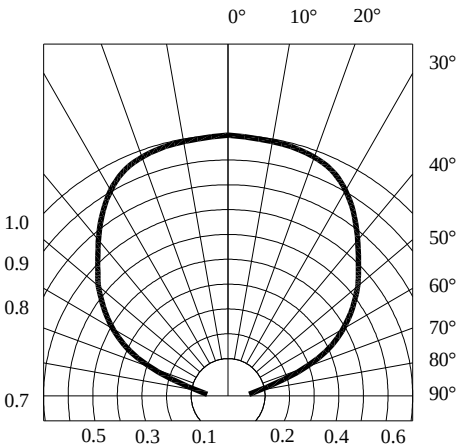
Forward Current VS. Applied Voltage



Forward Current VS. Luminous Intensity



Ambient Temperature VS. Forward Current



Radiation Diagram

Handling of Silicone Resin LEDs

Handling Indications

During processing, mechanical stress on the surface should be minimized as much as possible. Sharp objects of all types should not be used to pierce the sealing compound

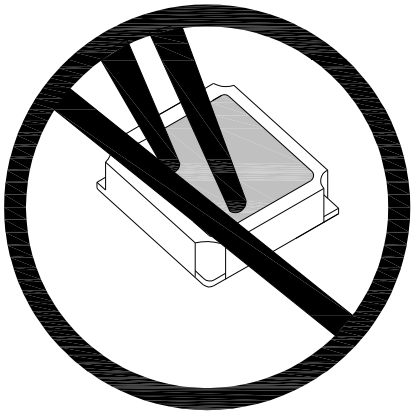


Figure 1

In general, LEDs should only be handled from the side. By the way, this also applies to LEDs without a silicone sealant, since the surface can also become scratched.

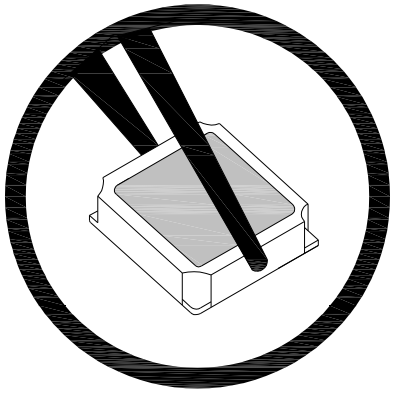
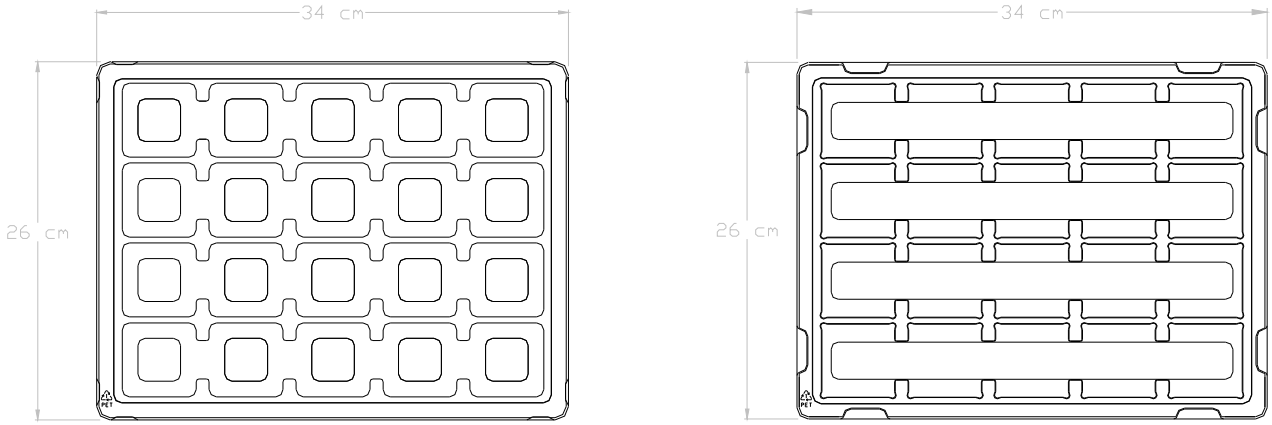
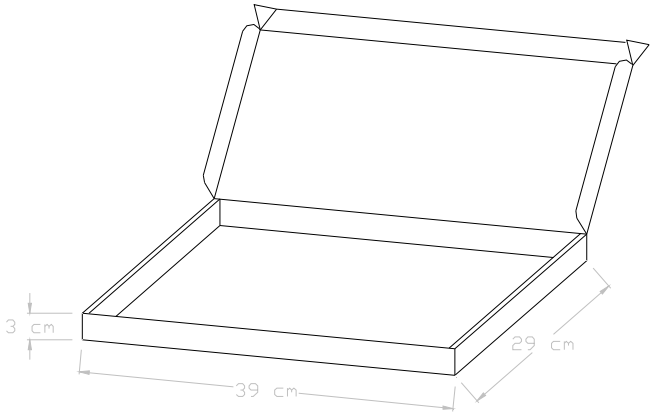


Figure 2

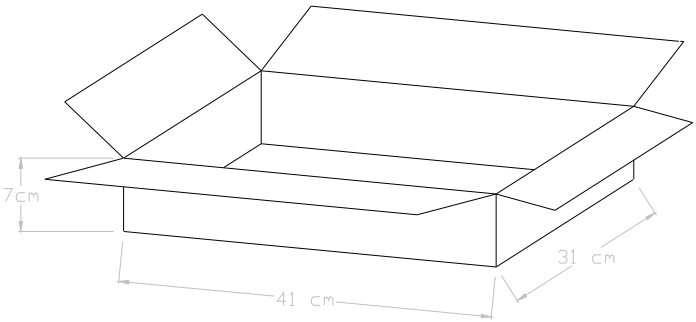
When populating boards in SMT production, there are basically no restrictions regarding the form of the pick and place nozzle, except that mechanical pressure on the surface of the resin must be prevented. This is assured by choosing a pick and place nozzle which is larger than the LED's reflector area.

Tray packaging





Inner box



Outer box

Notes：

1. All dimensions are in mm.
2. There are 20pcs in a tray.
3. There are 2trays in an inner box.
4. There are 2 inner boxes in an outer box.