LEDTECH ELECTRONICS CORP.

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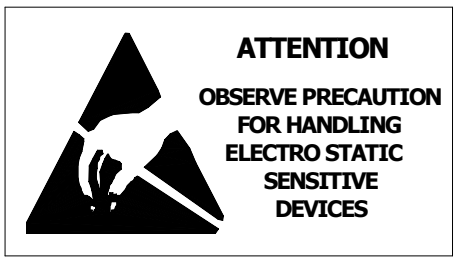
SPECIFICATION

PART NO. : LP30NR-S079

COB ϕ25mm TYPE



Approved by	Checked by	Prepared by
王方波	蘇智良	陳富強

Ledtech	LP30NR-S079	COB ϕ 25mm TYPE

MODIFY RECORD

TAKE EFFECT DATE	MODIFY ISSUES	REMARKS

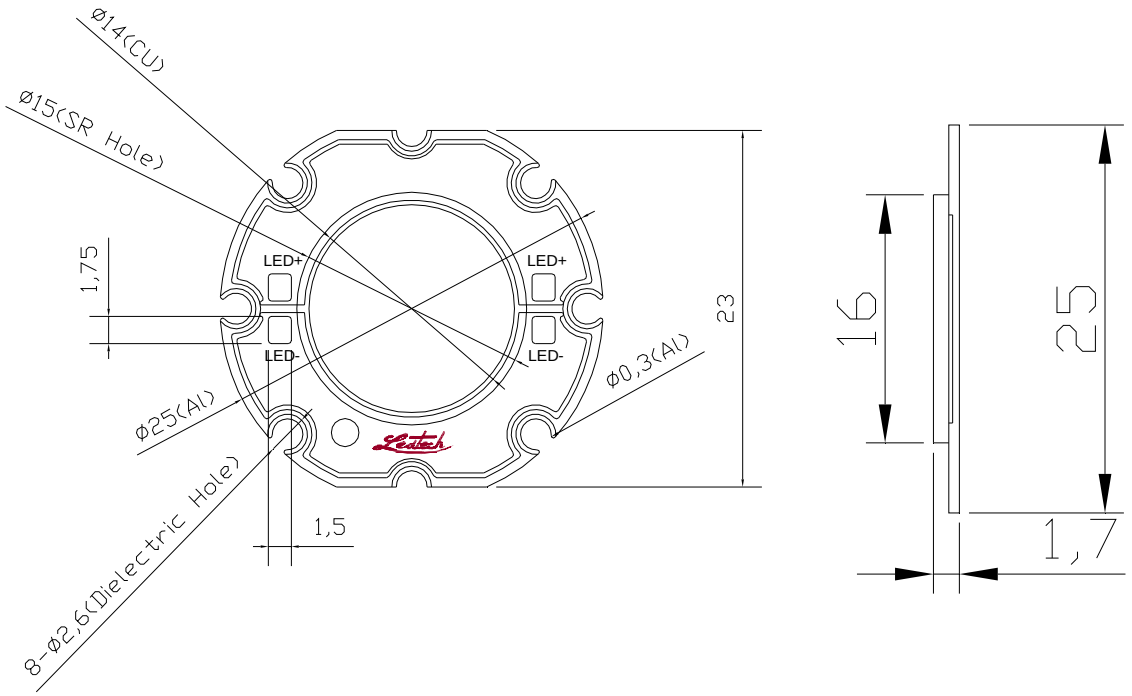
Features

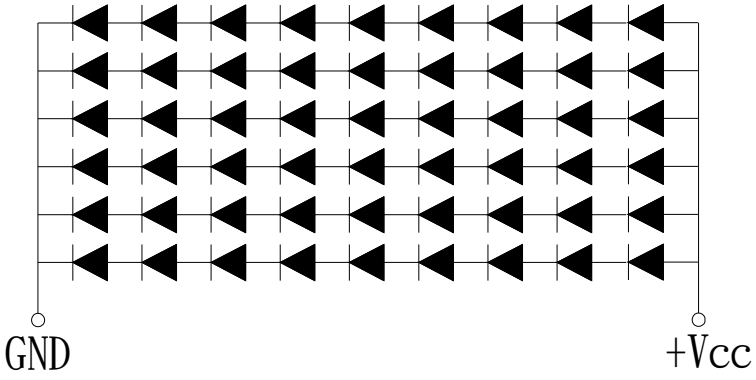
- Pb-Free soldering application
- RoHS compliance
- Multi-Chip package
- High Reliability

Application

- Bulb
- Indoor decoration lighting
- Signal and symbol luminaries
- Reading lights
- Portable flashlight

Package Dimensions





Notes:

1. All dimensions are in mm.
2. Tolerance is ±0.25mm unless otherwise noted.

Description

Part No.	LED Chip		Lens Color
	Material	Emitting Color	
LP30NR-S079	InGaN/Sapphire	Warm White	Orange Diffused

Absolute Maximum Ratings at Ta=25 ℃

Parameter	Symbol	Rating	Unit
Power Dissipation	PD	10.5	W
D.C. Forward Current	If	350	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

★ The value are based on 1 die performance.

Electrical and Optical Characteristics：

Parameter		Symbol	Condition	Values			Units
				Min.	Typ.	Max.	
Luminous Flux		Φv	IF=350mA	--	840	--	lm
	Rank L2			750	--	800	
	Rank L3			800	--	850	
				850	--	900	
				900	--	950	
Forward voltage		VF	IF=350mA		28		V
	Rank V2			26	--	29	
	Rank V3			29	--	32	
Correlated Color Temperature		CCT	IF=350mA	2750	--	3250	K
CIE Chromaticity Coordinates: X Axis		X	IF=350mA	--	0.4338	--	
CIE Chromaticity Coordinates: Y Axis		Y	IF=350mA	--	0.403	--	
Reverse Current		I_R	Vr=5V	--	--	50	μA
Color Rendering Index		CRI	IF=350mA	80	--	--	Ra
Viewing angle at 50% IV		2θ1/2		--	120	--	Deg.

Notes:

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

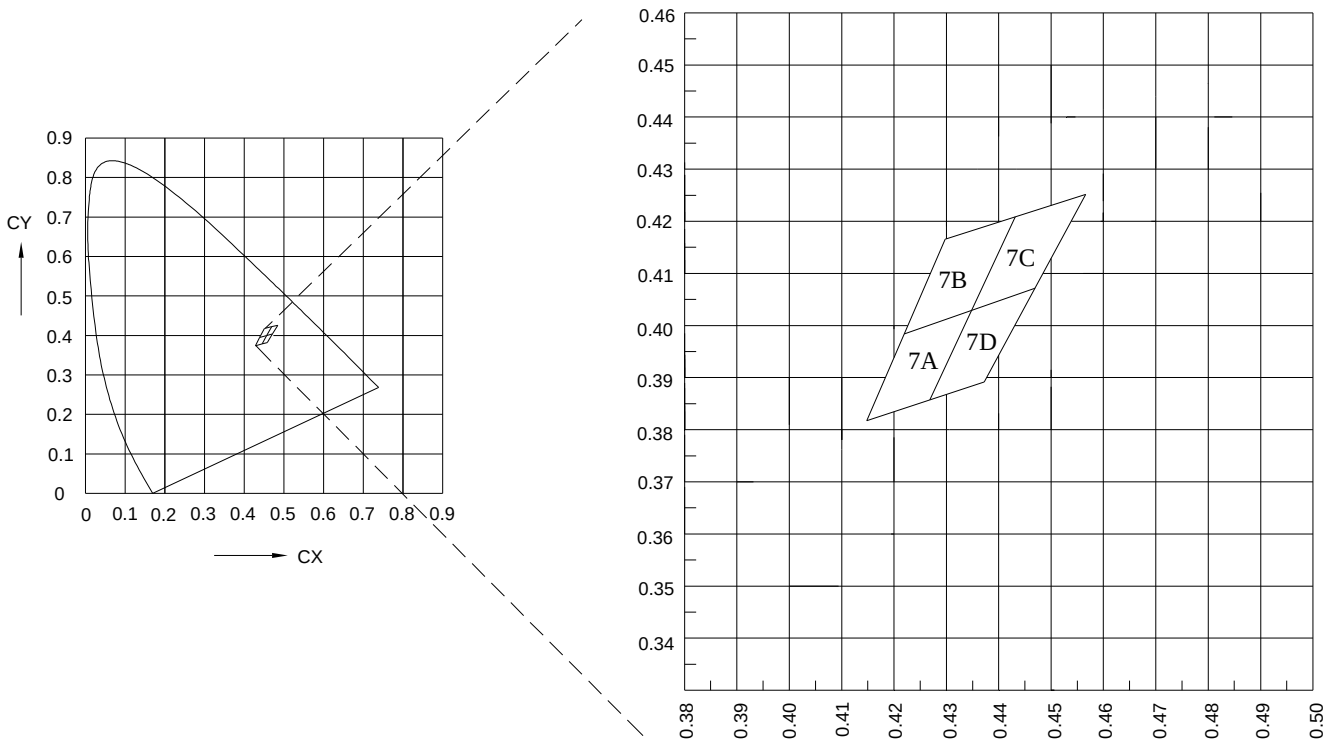
Chromaticity Coordinates Specifications for Bin Grading:

COLOR RANKS (IF=350mA.Ta=25℃)

BIN	RANK				
7A	X	0.4147	0.4221	0.4342	0.4259
	Y	0.3814	0.3984	0.4028	0.3853
7B	X	0.4221	0.4299	0.4430	0.4342
	Y	0.3984	0.4165	0.4212	0.4028
7C	X	0.4342	0.4430	0.4562	0.4465
	Y	0.4028	0.4212	0.4260	0.4071
7D	X	0.4259	0.4342	0.4465	0.4373
	Y	0.3853	0.4028	0.4071	0.3893

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)

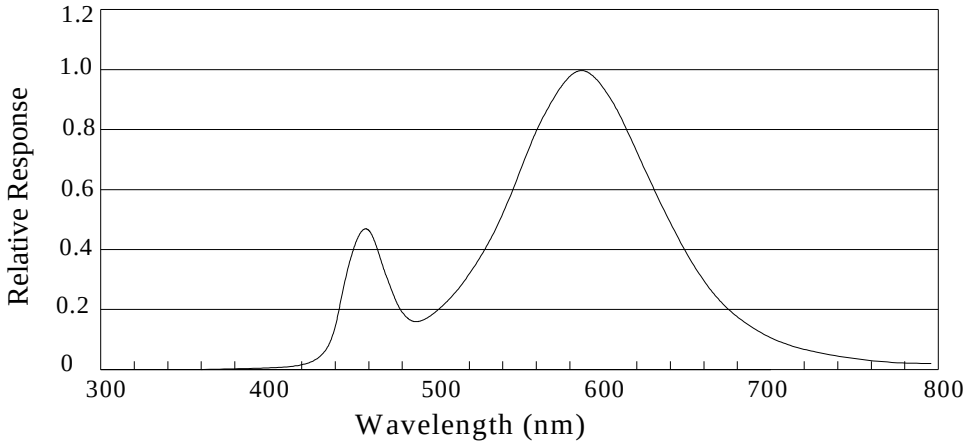
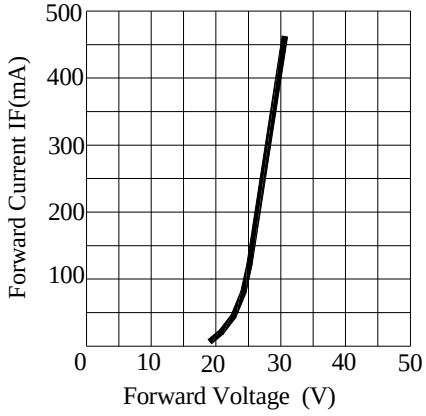
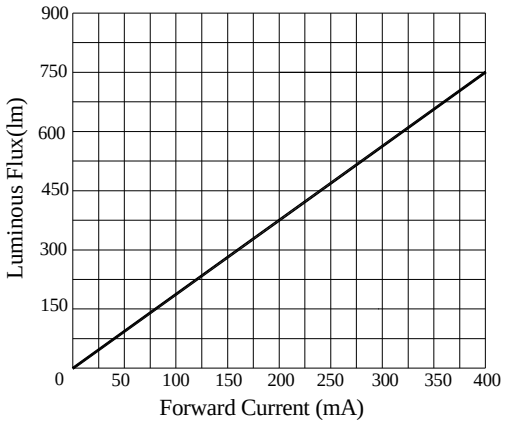


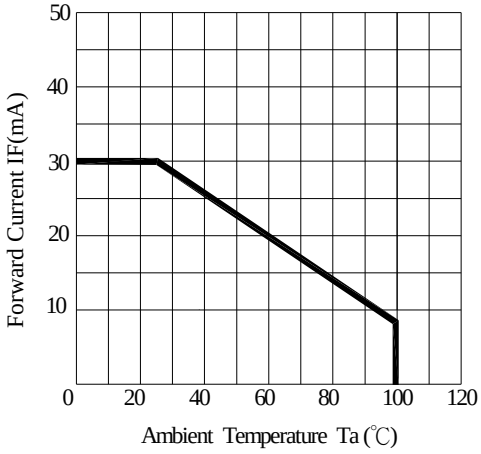
Fig.1 WHITE LED Spectrum VS. WAVELENGTH



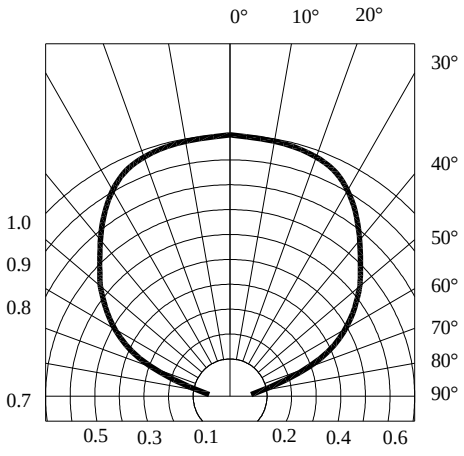
Forward Current VS. Applied Voltage



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

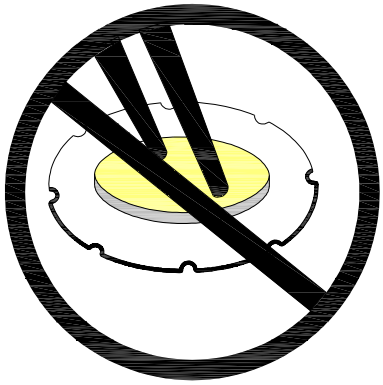


Figure 1

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.

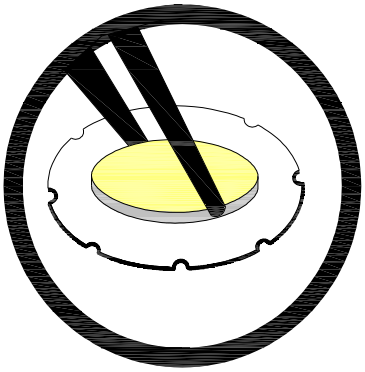


Figure 2

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.