

SPECIFICATION FOR COTCO LED LAMP

Document No: SPE/LM1-EWN1-01-N2-MT
Model No : LM1-EWN1-01-N2-MT
Rev. No : 01
Date: 2007-05-09

Description:

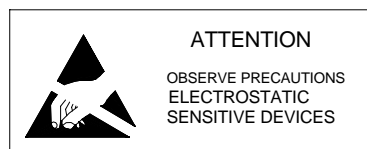
120 Degree 3.2 x 2.7mm SMT-LED in White Color
with Water Transparent

*This specification is only for MT

Dice Material: InGaN

Confirmed
By Customer: _____

Date: _____



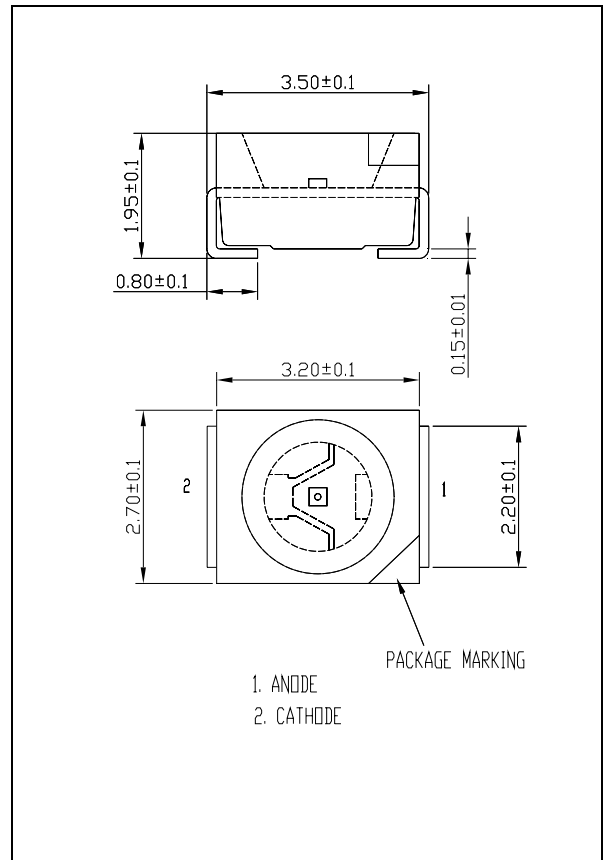
Applications:

- Indicators
- Illuminations
- LCD Back Lights
- Automobile's Applications

Absolute Maximum Ratings at Ta = 25°C

Items	Symbol	Absolute maximum Rating	Unit
Forward Current	I _F	25	mA
Peak Forward Current*	I _{FP}	100	mA
Reverse Voltage	V _R	5	V
Power Dissipation	P _D	100	mW
Operation Temperature	T _{opr}	-40 ~ + 100	°C
Storage Temperature	T _{stg}	-40 ~ + 100	°C
Junction temperature	T _j	+110	°C
Junction/ambient **	R _{th JA}	450	°C/W
Junction/solder point	R _{th JS}	300	°C/W

Dimension Drawing



*pulse width≤0.1msec duty ≤1/10 ** Rth test condition: Mounted on PC Board FR 4(pad size≥16mm²)

Typical Electrical & Optical Characteristics (Ta = 25°C)

Items	Symbol	Condition	Min.	Typ.	Max.	Unit
Forward Voltage	V _F	I _F = 20mA	---	3.4	4.0	V
Reverse Current	I _R	V _R = 5V	---	---	10	μA
Luminous Flux	Φ _V	I _F = 20mA	---	2700	---	lm
Luminous Intensity	I _v	I _F = 20mA	560	1000	---	mcd
Chromaticity Coordinates	x	I _F = 20mA	---	0.31	---	---
	y	I _F = 20mA	---	0.32	---	---
50% Power Angle	2 θ _½	I _F = 20mA	---	120	---	deg

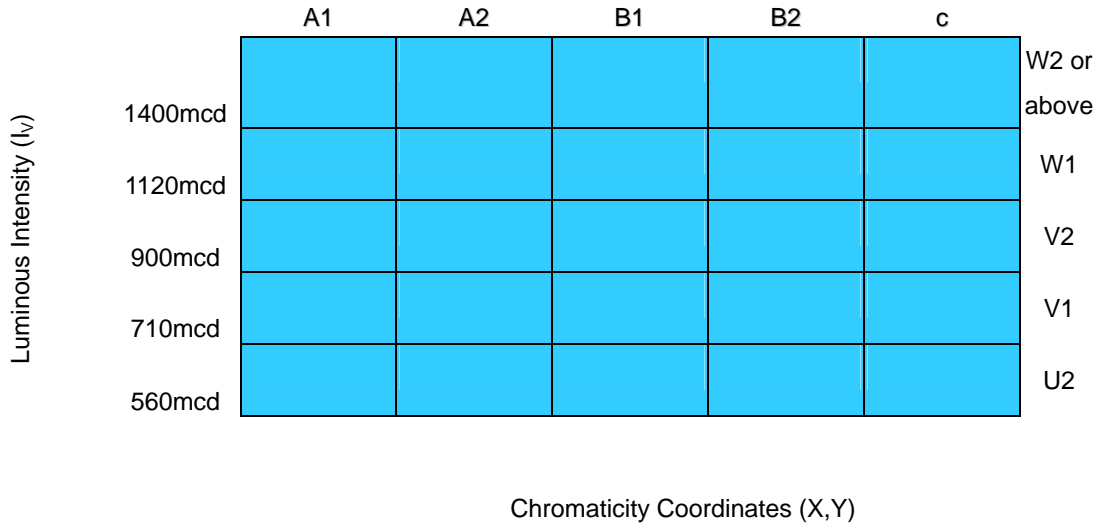
Standard bins for LM1-EWN1-01-N2-MT(IF = 20mA):

Lamps are sorted to Luminous Intensity –IV & Chromaticity Coordinates –(X,Y) bins shown.

Orders for LM1-EWN1-01-N2-MT may be filled with any or all bins contained as below.

All Luminous Intensity –IV & Chromaticity Coordinates –(X,Y) values shown and specified are at IF =20mA.

*** U2+**



* U2+ indicates Luminous Intensity is at U2 bin or above.

Rank		A1				A2				B1			
Chromaticity Coordinates	x	0.245	0.264	0.280	0.264	0.264	0.283	0.296	0.280	0.283	0.307	0.313	0.296
	y	0.229	0.267	0.248	0.220	0.267	0.305	0.276	0.248	0.305	0.337	0.297	0.276

Rank		B2				c			
Chromaticity Coordinates	x	0.307	0.330	0.330	0.313	0.330	0.361	0.356	0.330
	y	0.337	0.360	0.318	0.297	0.360	0.385	0.351	0.318

Forward Voltage (Vf)

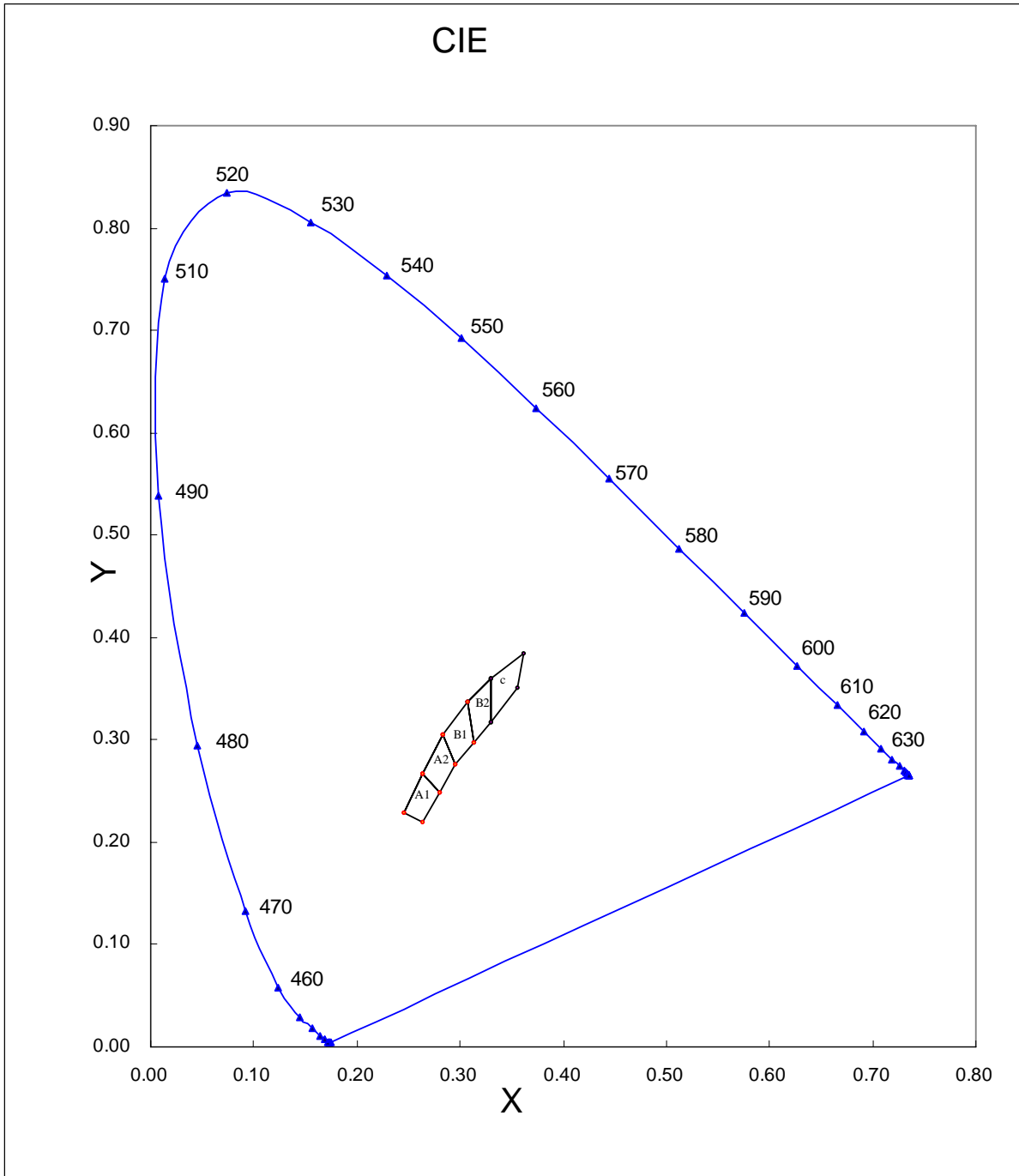
Rank	Vh	Vd	Ve	Vf
Voltage	2.6-3.0V	3.0-3.4V	3.4-3.8V	3.8-4.2V

*Majority VF bins are highlighted in Yellow.

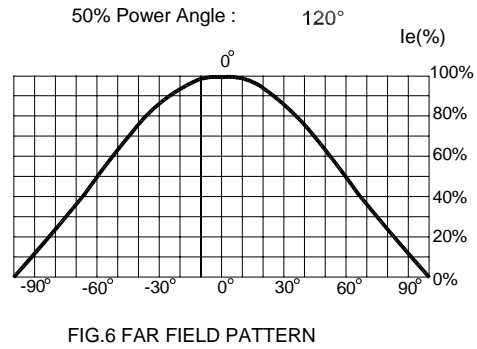
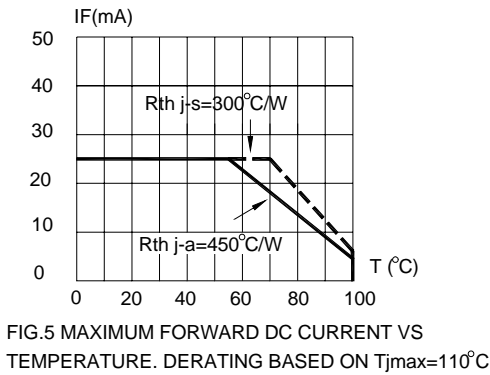
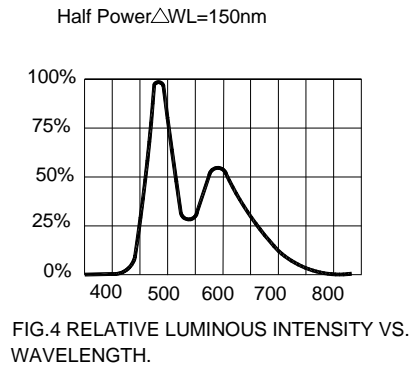
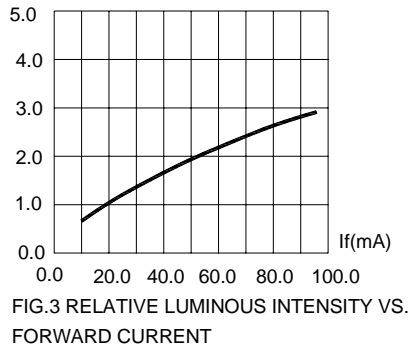
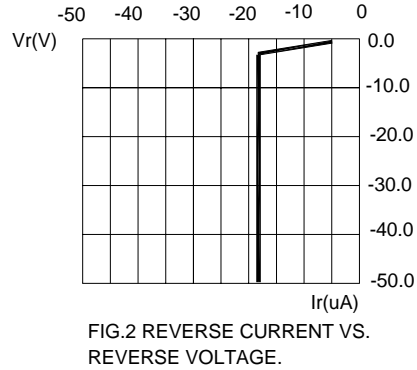
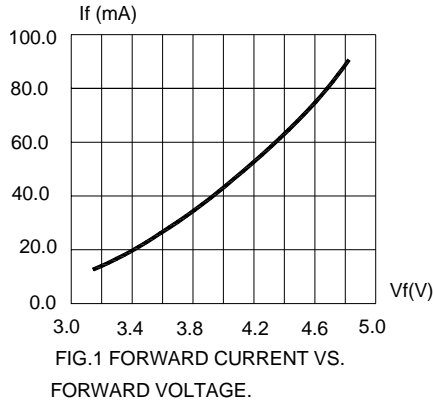
Important Notes:

- 1) All ranks will be included per delivery, rank ratio will be based on Dices distribution.
- 2) Tolerance of measurement of luminous intensity is $\pm 10\%$
- 3) Tolerance of measurement of the Color Coordinates is ± 0.01 .
- 4) Tolerance of measurement of Vf is ± 0.05 V.
- 5) Packaging methods are available for selection, please refer to PACKAGING STANDARD.
- 6) Please refer to LED LAMP RELIABILITY TEST STANDARD for reliability test conditions.
- 7) Please refer to APPLICATION NOTES for Application.
- 8) Do not handle the device by the SMD surface. care must be taken to avoid damage to the SMD surface or the interior of the device that can be damaged by excessive force to the SMD surface.

CIE Chromaticity Diagram



Graphs



Items	Signatures	Date	Revision History		
Prepared by	WangFJ	2007-05-09	Rev.No	Date	Change Description
Checked by	XieJH	2007-05-09			
Approved by	DavidLiu	2007-05-09			
FCN#	FCN20070				

Data is subject to change without prior notice.

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