

SPECIFICATION FOR COTCO LED LAMP

Document No: SPE/LM1-UHR1-01-N1-MT
Model No : LM1-UHR1-01-N1-MT
Rev. No : 00
Date: 2007-10-08

Description:

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

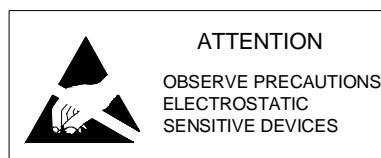
*This specification is only for MT.

Dice Material: AlGaInP

Confirmed

By Customer: _____

Date: _____



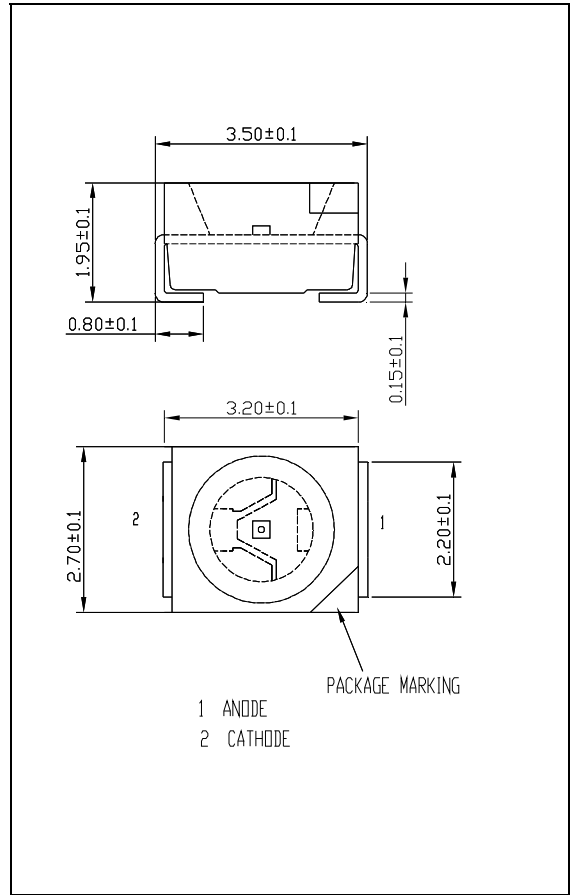
Applications:

- Indicators
- Illuminations
- LCD Back Lights
- Automobile's Applications
- High red Color Displays

Absolute Maximum Ratings at Ta = 25°C

Items	Symbol	Absolute maximum Rating	Unit
Forward Current	I_F	50	mA
Peak Forward Current*	I_{FP}	200	mA
Reverse Voltage	V_R	5	V
Power Dissipation	P_D	130	mW
Operation Temperature	T_{opr}	-40 ~ + 100	°C
Storage Temperature	T_{stg}	-40 ~ + 100	°C
Junction temperature	T_j	+110	°C
Junction/ambient **	Rth JA	450	°C/W
Junction/solder point	Rth JS	300	°C/W
Electrostatic Discharge Classification (MIL-STD-883E)	ESD	Class II	

Dimension Drawing



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

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

Items	Symbol	Condition	Min.	Typ.	Max.	Unit
Forward Voltage	V_F	$I_F = 20$ mA	---	2.1	2.6	V
Reverse Current	I_R	$V_R = 5$ V	---	---	10	μ A
Luminous Intensity	I_V	$I_F = 20$ mA	355	650	---	mcd
Dominant Wavelength	λ_D	$I_F = 20$ mA	618	624	630	nm
50% Power Angle	$2 \theta_{\frac{1}{2}}$	$I_F = 20$ mA	---	120	---	deg

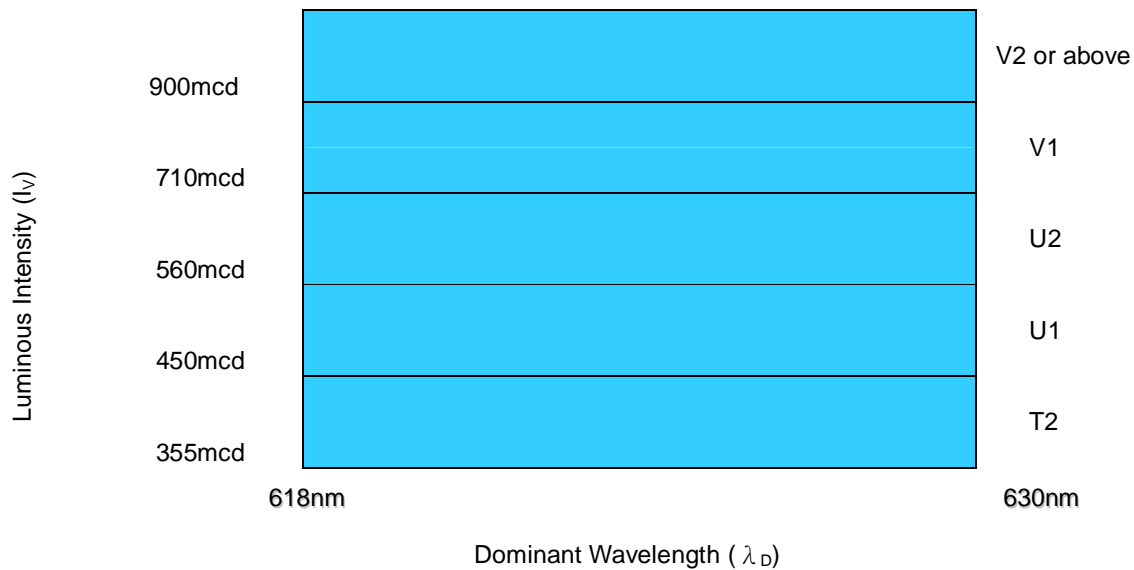
Standard bins for LM1-UHR1-01-N1-MT ($I_F = 20\text{mA}$):

Lamps are sorted to Luminous Intensity – I_V & Dominant Wavelength – λ_D bins shown.

Orders for LM1-UHR1-01-N1-MT may be filled with any or all bins contained as below.

All Luminous Intensity – I_V & Dominant Wavelength – λ_D values shown and specified are at $I_F=20\text{mA}$.

* **T2+**



* T2+ indicates Luminous Intensity is at T2 bin or above.

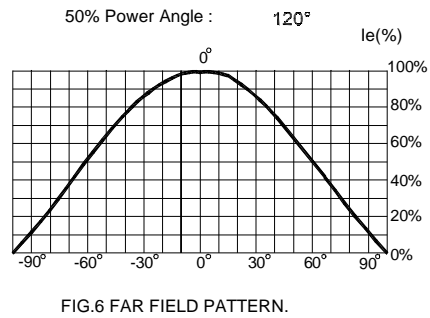
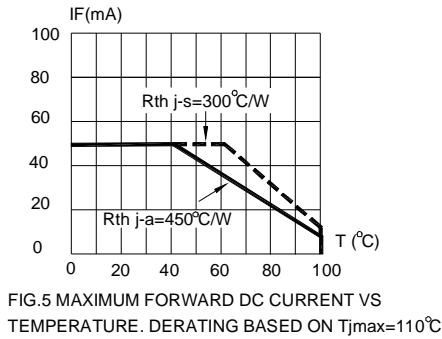
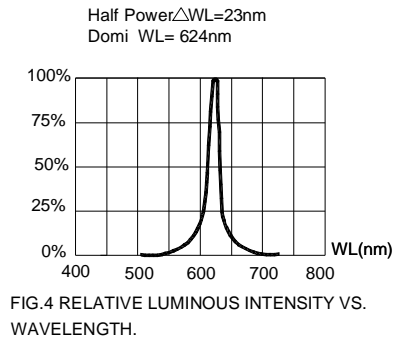
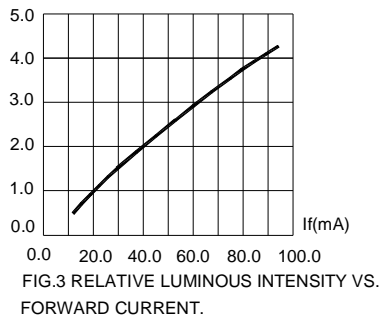
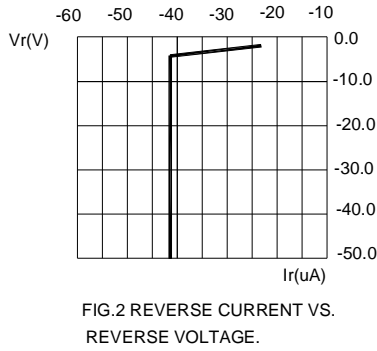
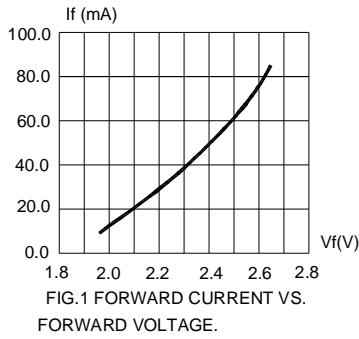
Forward Voltage (V_F)

Rank	V1	V2	V3	V4	V5
Voltage	1.6-1.8V	1.8-2.0V	2.0-2.2V	2.2-2.4	2.4-2.6V

Important Notes:

- 1) All ranks will be included per delivery, rank ratio will be based on Dices distribution.
- 2) No tolerance in the measurement of Luminous Intensity is $\pm 10\%$.
- 3) Tolerance of measurement of dominant wavelength is $\pm 1\text{nm}$.
- 4) Tolerance of measurement of V_f is $\pm 0.05\text{V}$.
- 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.

Graphs



Items	Signatures	Date
Prepared by	LiuYin	2007-10-08
Checked by	WangXuan	2007-10-08
Approved by	DavidLiu	2007-10-08
FCN#	FCN20070	

Revision History		
Rev. No	Date	Change Description

Data is subject to change without prior notice;
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