

SPECIFICATION FOR COTCO LED LAMP

MODEL No : LC512THR1-25Q
DOC. No : B 31Jul02

Description:

25 Degree 5mm LED Lamp in High
Red Color with Water Transparent Lens
and No Stopper

Dice Material: AlGaInP

Confirmed
by Customer: _____

Date: _____

COTCO LUMINANT DEVICE (HUIZHOU) LTD.

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Applications:

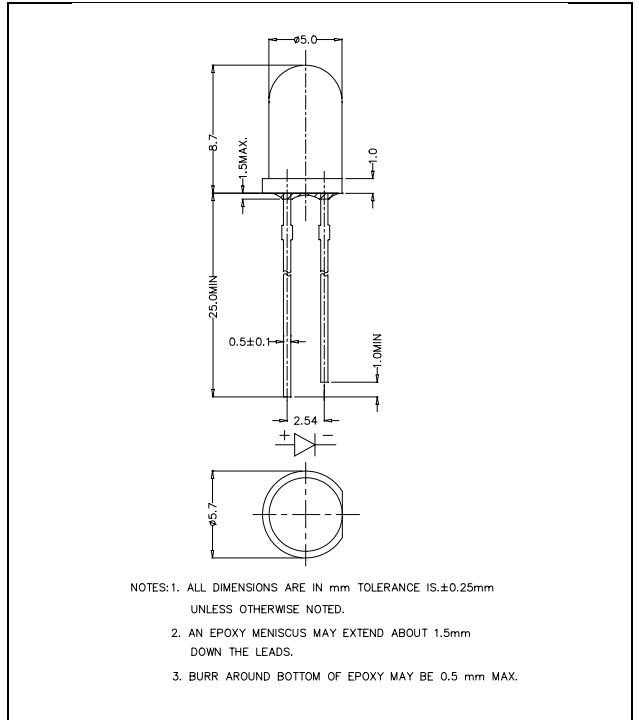
- Advertising Signs
- Indicators
- Traffic
- Automotive Lighting

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	150	mW
Operation Temperature	T_{opr}	-40 ~ +95	°C
Storage Temperature	T_{stg}	-40 ~ +100	°C
Lead Soldering Temperature	T_{sol}	Max.260°C for 5 sec Max. (3mm from the base of the epoxy bulb)	

*pulse width $\leq 0.1\text{msec}$ duty $\leq 1/10$

Dimension Drawing



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

Items	Symbol	Condition	Min.	Typ.	Max.	Unit
Forward Voltage	V_F	$I_F = 20\text{mA}$	1.7	2.1	2.6	V
Reverse Current	I_R	$V_R = 5\text{V}$	---	---	100	μA
Dominant Wavelength	λ_D	$I_F = 20\text{mA}$	620	628	635	nm
Luminous Intensity	I_V	$I_F = 20\text{mA}$	1520	3300	---	mcd
50% Power Angle	$2\theta_{1/2}$	$I_F = 20\text{mA}$	---	25	---	deg

Ranks Combination ($I_F = 20\text{mA}$)

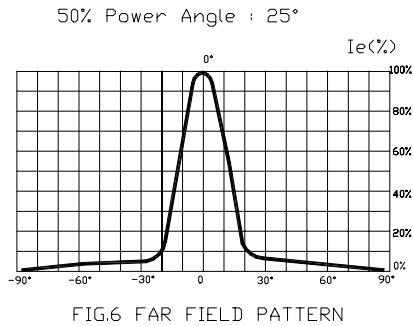
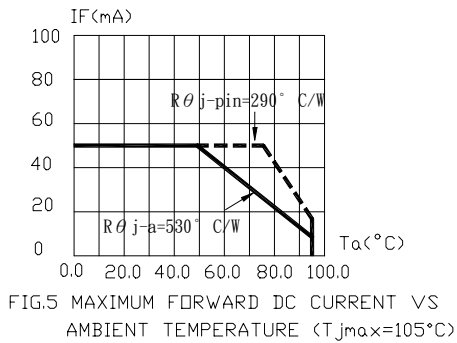
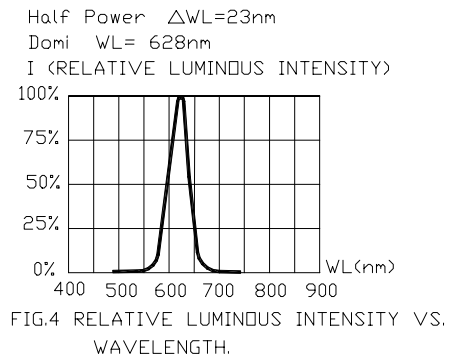
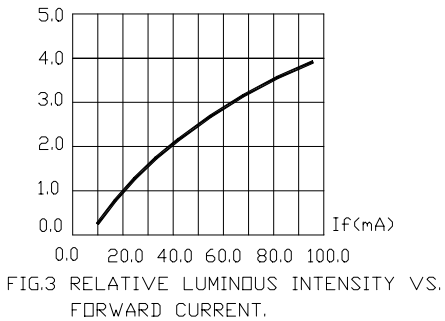
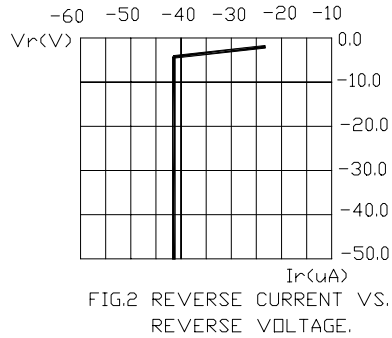
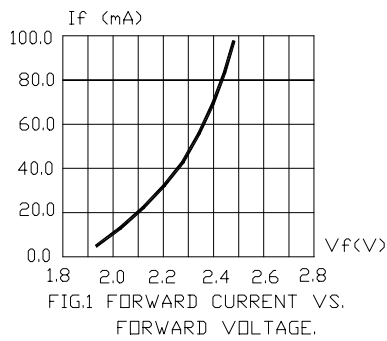
Rank	U	V	W	X
Luminous Intensity	1520-2130 mcd	2130-3000 mcd	3000-4180 mcd	4180-5860 mcd

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

Important Notes:

- 1) All ranks will be included per delivery, rank ratio will be determined by Cotco.
- 2) Tolerance of measurement of luminous intensity is $\pm 15\%$.
- 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.

Graphs



1. Cathode PAD Area ($0.18 \times 0.18\text{inch}^2$)
2. Height above nominal seating plane in inches(0.3inch)

Items	Signatures	Date	Revision History	
Prepared by	LiuZM	2002/7/31	DOC. No.	CHANGE DESCRIPTION
Checked by	ZouGR	2002/7/31	B 31Jul02	CHANG FORMAT
Approved by	David	2002/7/31		
ECN#	ECN-H20020761			

Data is subject to change without prior notice.

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Obsoletes Doc: A 01Jun02(preliminary).