

SPECIFICATION FOR COTCO LED LAMP

Document No: SPE/LC519AYL1-25Q-A-MT
Model No : LC519AYL1-25Q-A-MT
Rev. No: 01
Date: 2006-04-18

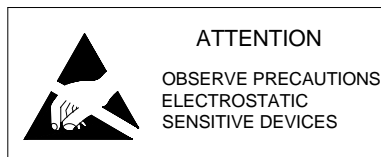
Description:

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

*This specification is only for MT
Dice Material: AlGaInP

Confirmed
by Customer: _____

Date: _____



Applications:

- Cemetery Lightings
- Indicators

Absolute Maximum Ratings at Ta = 25°C

Items	Symbol	Absolute maximum Rating	Unit
Forward Current ^{*2}	I _F	50	mA
Peak Forward Current ^{*1}	I _{FP}	200	mA
Reverse Voltage	V _R	5	V
Power Dissipation	P _D	130	mW
Operation Temperature	T _{opr}	-40 ~ +95	°C
Storage Temperature	T _{stg}	-40 ~ +100	°C
Lead Soldering Temperature	T _{sol}	Max.260°C for 3 sec Max. (3mm from the base of the epoxy bulb)	
Electrostatic Discharge Classification (MIL-STD-883E)	ESD	Class 1	

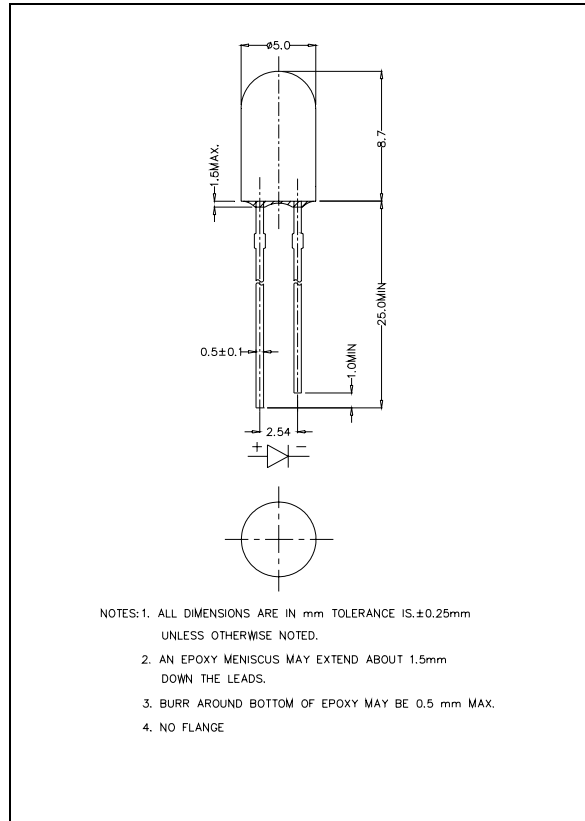
*1 pulse width <=0.1msec duty <=1/10

*2 For long term performance the drive currents between 10mA and 30mA are recommended. Please contact COTCO sales representative for more information on recommended drive conditions.

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

Items	Symbol	Condition	Min.	Typ.	Max.	Unit
Forward Voltage	V _F	I _F = 20mA	---	2.1	2.6	V
Reverse Current	I _R	V _R = 5V	---	---	100	μA
Dominant Wavelength	λ _D	I _F = 20mA	584	591	596	nm
Luminous Intensity	I _v	I _F = 20mA	3000	6000	---	mcd
50% Power Angle	2θ _{½H-H}	I _F = 20mA	---	25	---	deg

Dimension Drawing



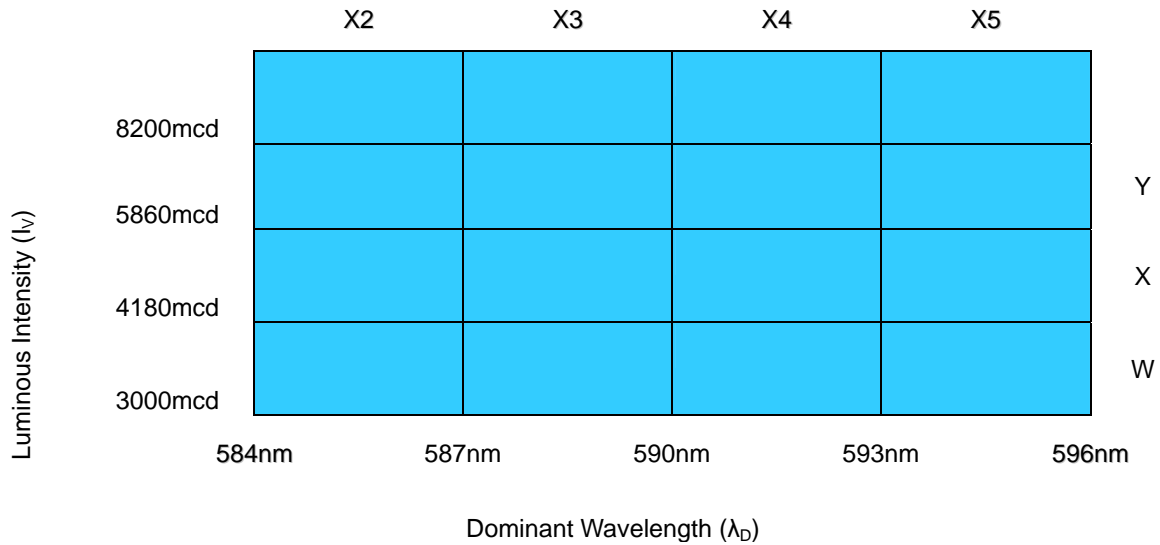
Standard bins for LC519AYL1-25Q-A-MT (I_F = 20mA):

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

Orders for LC519AYL1-25Q-A-MT may be filled with any or all bins contained as below.

All Luminous Intensity –I_V, V_F & Dominant Wavelength –λ_D values shown and specified are at I_F=20mA.

* **W+**



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

Forward Voltage (V_F)

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

*Majority VF bins are highlighted in Yellow.

Important Notes:

- 1) All ranks will be included per delivery, rank ratio will be based on the Dices distribution.
- 2) Pb content <1000PPM.
- 3) Tolerance of measurement of luminous intensity is ±15%.
- 4) Tolerance of measurement of dominant wavelength is ±1nm.
- 5) Tolerance of measurement of Vf is ±0.05 V.
- 6) Packaging methods are available for selection, Please refer to PACKAGING STANDARD.
- 7) Please refer to LED LAMP RELIABILITY TEST STANDARD for reliability test conditions.
- 8) Please refer to APPLICATION NOTES for Application.

Graphs

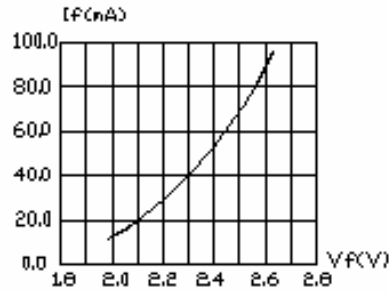


FIG1 FORWARD CURRENT VS. FORWARD VOLTAGE

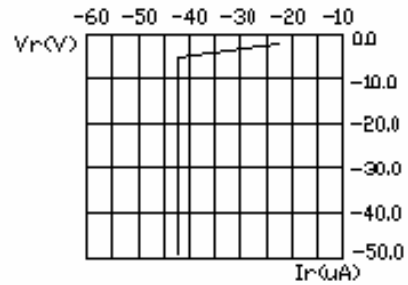


FIG2 REVERSE CURRENT VS. REVERSE VOLTAGE

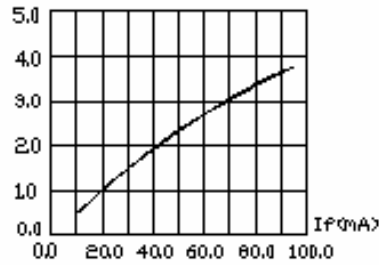


FIG3 ELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT

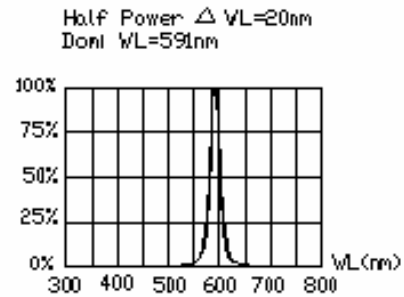


FIG4 RELATIVE LUMINOUS INTENSITY VS. WAVELENGTH

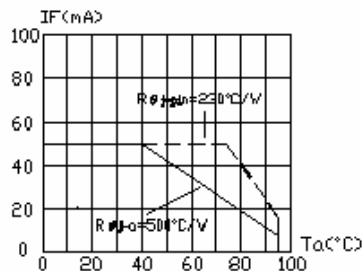


FIG5 MAXIMUM FORWARD CURRENT VS. AMBIENT TEMPERATURE (Tjmax=105°C)

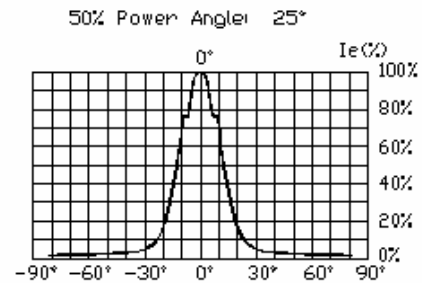


FIG6 FAR FIELD PATTERN

1. Cathode PAD Area (0.18 X 0.18inch²)
2. Height above nominal seating plane in inches(0.3inch)

Items	Signatures	Date
Prepared by	LiuZM	2006-04-18
Checked by	Aldosin	2006-04-18
Approved by	David	2006-04-18
FCN#	FCN20060	

Revision History		
Rev. No	Date	Change Description

Data is subject to change without prior notice.

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