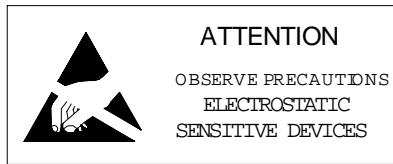




COTCO LUMINANT DEVICE (HUIZHOU) LTD

Part #: LC503MBL1-45Q

Product Description: Blue 45° 5mm LED lamp with Water Clear lens.

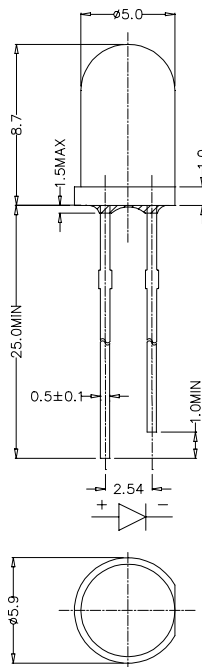


Resin: Epoxy

Lens Color: Water Clear

Lead Frame: Ag Plating Iron Alloy

Dice: InGaN/SiC



- NOTES: 1. ALL DIMENSIONS ARE IN mm TOLERANCE IS ± 0.25 mm UNLESS OTHERWISE NOTED.
2. AN EPOXY MENISCUS MAY EXTEND ABOUT 1.5mm DOWN THE LEADS.
3. BURR AROUND BOTTOM OF EPOXY MAY BE 0.5 mm MAX.

COTCO-D-074 REV.0

For Pricing and Delivery Information Contact:

1/3

Marktech Optoelectronics*

120 Broadway, Menands, NY 12204

Phone: 800.984.5337 FAX: 518.432.7454

Web Site: www.marktechopto.com

*Marktech is the exclusive North American Technical Sales and Marketing office for COTCO LED products

SPECIFICATION

Absolute Maximum Rating (T_a = 25°C)

Items	Symbol	Absolute maximum Rating	Unit
Forward Current	I _F	25	mA
Peak Forward Current pulse width ≤0.1msec duty ≤1/10	I _{FP}	100	mA
Reverse Voltage	V _R	5	V
Power Dissipation	P _D	120	mW
Operation Temperature	T _{opr}	-20 ~ +75	°C
Storage Temperature	T _{stg}	-30 ~ +80	°C
Lead Soldering Temperature	T _{sol}	260°C for 3 sec (3mm from the base of the epoxy bulb)	

Initial Electrical/Optical Characteristics (T_a = 25°C)

Items	Symbol	Condition	Min.	Typ.	Max.	Unit
Forward Voltage	V _F	I _F = 20mA	3.2	3.6	4.2	V
Reverse Current	I _R	V _R = 5V	---	---	100	μA
Wavelength	λ _D	I _F = 20mA	460	470	480	nm
Luminous Intensity	I _V	I _F = 20mA	145	280	---	mcd
Viewing Angle	2θ _{1/2}	I _F = 20mA	---	45	---	deg

Luminous Intensity Combination

Rank	M	N	P	Q
Luminous Intensity (I _F =20mA)	145-200 mcd	200-280 mcd	280-390 mcd	390-550 mcd

*One normal delivery will include all ranks listed above.

The quantity ratio of the ranks is decided by COTCO.

Measurement Uncertainty of the Luminous intensity : ±15%

COTCO-D-074 REV.0

For Pricing and Delivery Information Contact:

2/3

Marktech Optoelectronics*

120 Broadway, Menands, NY 12204

Phone: 800.984.5337 FAX: 518.432.7454

Web Site: www.marktechopto.com

*Marktech is the exclusive North American Technical Sales and Marketing office for COTCO LED products

GRAPHS

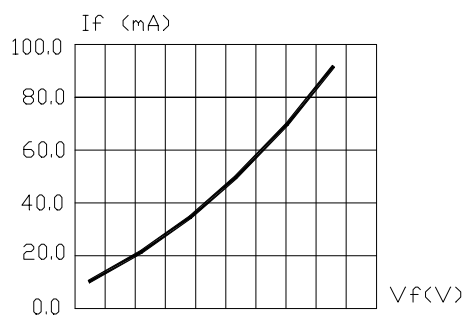


FIG.1 FORWARD CURRENT VS. FORWARD VOLTAGE.

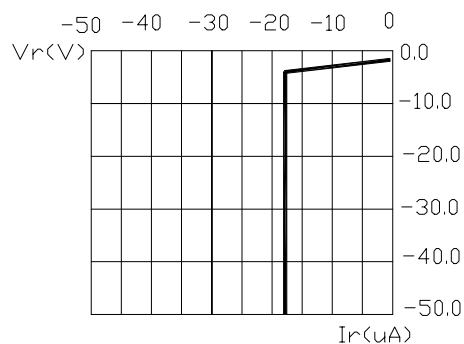


FIG.2 REVERSE CURRENT VS. REVERSE VOLTAGE.

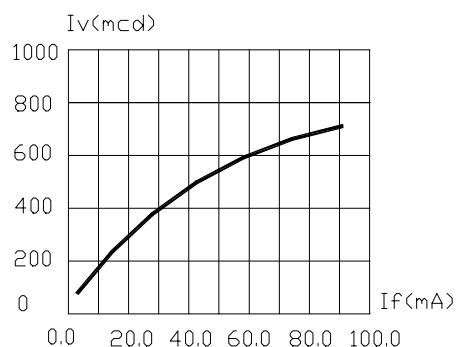


FIG.3 RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT.

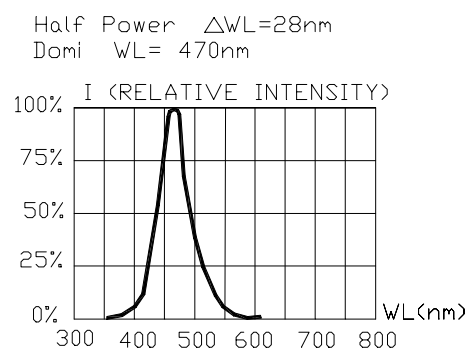


FIG.4 RELATIVE INTENSITY VS. WAVE LENGTH.

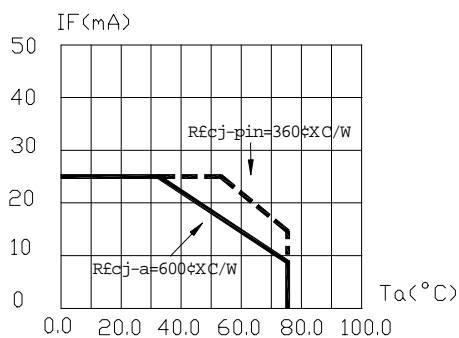
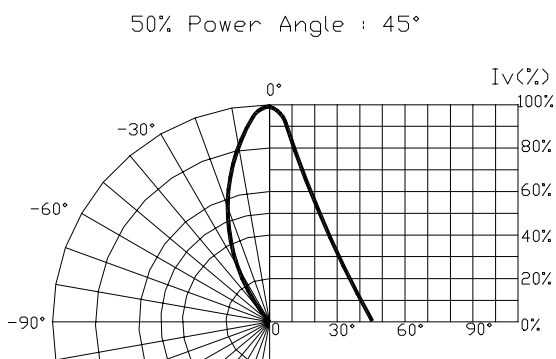
FIG.5 MAXIMUM FORWARD DC CURRENT VS AMBIENT TEMPERATURE, DERATING BASED ON $T_{jmax}=95^{\circ}C$ 

FIG.6 SPATIAL DISTRIBUTION.

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

COTCO-D-074 REV.0

For Pricing and Delivery Information Contact:

3/3

Marktech Optoelectronics*

120 Broadway, Menands, NY 12204

Phone: 800.984.5337 FAX: 518.432.7454

Web Site: www.marktechopto.com

*Marktech is the exclusive North American Technical Sales and Marketing office for COTCO LED products