



COTCO LUMINANT DEVICE (HUIZHOU) LTD

Part #: LP377THR1-70G

Product Description: Red 70° 7.6x7.6mm LED lamp with water transparent lens and stand offs.

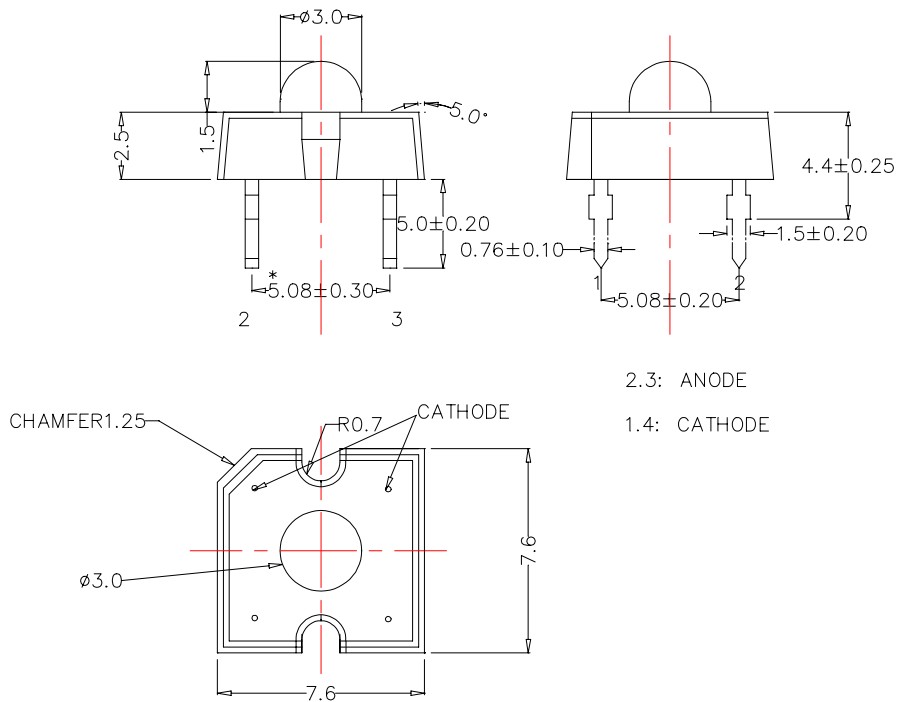
Resin: Epoxy

Lens Color: Water Transparent

Lead Frame: Ag Plating Copper Alloy

Dice: AlGaInP

DIMENSION DRAWING



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.

For Pricing and Delivery Information Contact:

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 ($T_a = 25^\circ$)

Items	Symbol	Absolute maximum Rating	Unit
Forward Current	I_F	70	mA
Peak Forward Current pulse width • 0.1msec duty • 1/10	I_{FP}	200	mA
Reverse Voltage	V_R	5	V
Power Dissipation	P_D	150	mW
Operation Temperature	T_{opr}	-40 ~ +100	•
Storage Temperature	T_{stg}	-40 ~ +100	•
Lead Soldering Temperature	T_{sol}	260°C for 5sec (3mm from the base of the epoxy bulb)	

Initial Electrical/Optical Characteristics ($T_a = 25^\circ$)

Items	Symbol	Condition	Min.	Typ.	Max.	Unit
Forward Voltage	V_F	$I_F = 70\text{mA}$	2.2	2.6	3.0	V
Reverse Current	I_R	$V_R = 5\text{V}$	---	---	100	••
Wavelength	λ_D	$I_F = 70\text{mA}$	625	628	635	nm
Luminous Flux	Φ_V	$I_F = 70\text{mA}$	2200	4000	---	mlm
50% Power Angle	$2 \cdot \frac{1}{2}$	$I_F = 70\text{mA}$	---	70	---	deg

Luminous Flux Combination *

Rank	R	S	T
Luminous Flux ($I_f=70\text{mA}$)	2200-3000 mlm	3000-4180 mlm	4180-5860 mlm

One normal delivery will include all ranks listed above.

The quantity ratio of the ranks is decided by COTCO.

Measurement Uncertainty of the Luminous flux : $\pm 15\%$ * Φ_V test condition: $I_f=70\text{mA}$.

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GRAPHS

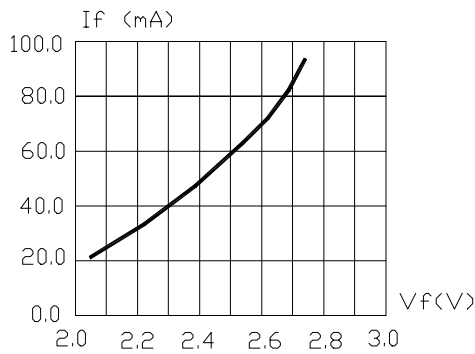


FIG.1 FORWARD CURRENT VS. FORWARD VOLTAGE.

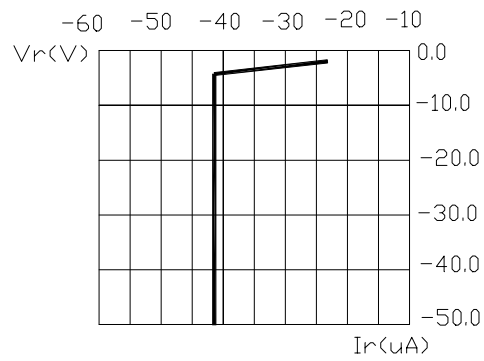


FIG.2 REVERSE CURRENT VS. REVERSE VOLTAGE.

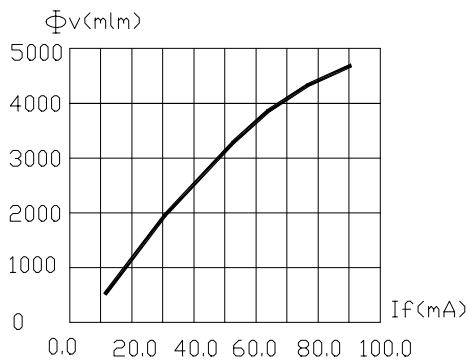


FIG.3 RELATIVE FLUX VS. FORWARD CURRENT.

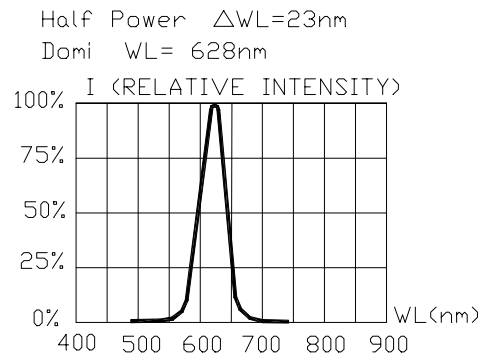


FIG.4 RELATIVE INTENSITY VS. WAVE LENGTH.

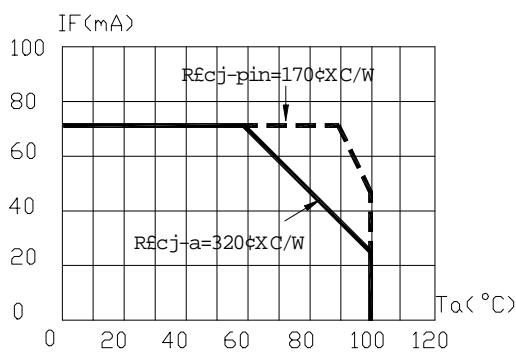


FIG.5 MAXIMUM FORWARD DC CURRENT VS TEMPERATURE, DERATING BASED ON Tjmax=120°C

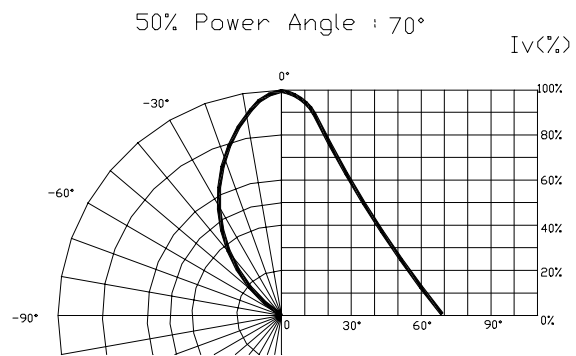


FIG.6 SPATIAL DISTRIBUTION.

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

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