

SPECIFICATION

Absolute Maximum Rating ($T_a = 25^\circ\text{C}$)

| Items | Symbol | Absolute maximum Rating | Unit |
|--|-----------|--|------------------|
| Forward Current | I_F | 25 | mA |
| Peak Forward Current pulse width $\leq 0.1\text{msec}$ duty $\leq 1/10$ | I_{FP} | 100 | mA |
| Reverse Voltage | V_R | 5 | V |
| Power Dissipation | P_D | 120 | mW |
| Operation Temperature | T_{opr} | -20 ~ + 75 | $^\circ\text{C}$ |
| Storage Temperature | T_{stg} | -30 ~ + 80 | $^\circ\text{C}$ |
| Lead Soldering Temperature | T_{sol} | 260 $^\circ\text{C}$ for 3sec (3mm from the base of the epoxy bulb) | |

Initial Electrical/Optical Characteristics ($T_a = 25^\circ\text{C}$)

| Items | Symbol | Condition | Min. | Typ. | Max. | Unit |
|--------------------|-----------------|---------------------|------|------|------|---------------|
| Forward Voltage | V_F | $I_F = 20\text{mA}$ | 3.2 | 3.6 | 4.2 | V |
| Reverse Current | I_R | $V_R = 5\text{V}$ | --- | --- | 100 | μA |
| Wavelength | λ_D | $I_F = 20\text{mA}$ | --- | 525 | --- | nm |
| Luminous Intensity | I_V | $I_F = 20\text{mA}$ | 2130 | 3500 | --- | mcd |
| 50% Power Angle | $2\theta_{1/2}$ | $I_F = 20\text{mA}$ | --- | 25 | --- | deg |

Ranks Combination

| Intensity Dominant Wavelength | Rank V 2130-3000 mcd | Rank W 3000-4180 mcd | Rank X 4180-5860 mcd |
|-------------------------------------|-------------------------|-------------------------|-------------------------|
| X7 520-525 nm | ☒ | ☒ | ☒ |
| X8 525-530 nm | ☒ | ☒ | ☒ |
| X9 530-535 nm | ☒ | ☒ | ☒ |

*One normal delivery will include all ranks listed above.

The quantity ratio of the ranks is decided by COTCO.

Upper and lower tolerance limit of the Luminous flux $\pm 15\%$ Upper and lower tolerance limit of the Dominant Wavelength $\pm 1.0\text{nm}$

COTCO-D-074 REV.0

Pricing and Delivery Information Contact:

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

GRAPHS

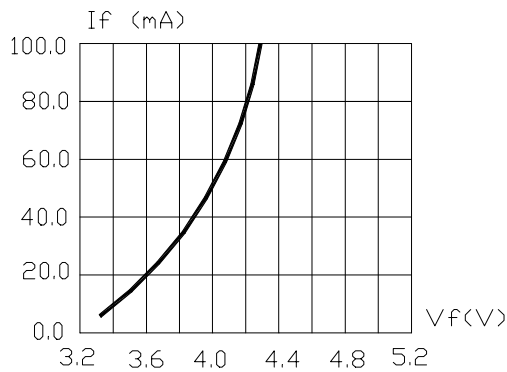


FIG.1 FORWARD CURRENT VS. FORWARD VOLTAGE.

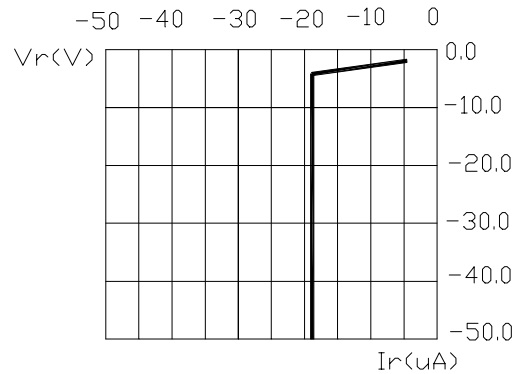


FIG.2 REVERSE CURRENT VS. REVERSE VOLTAGE.

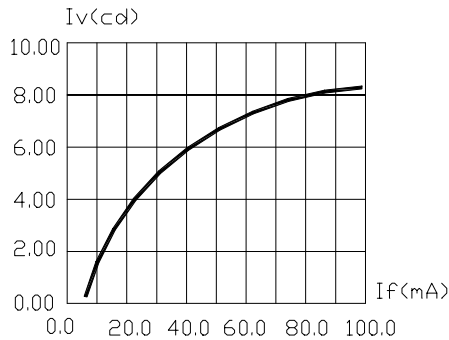


FIG.3 RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT.

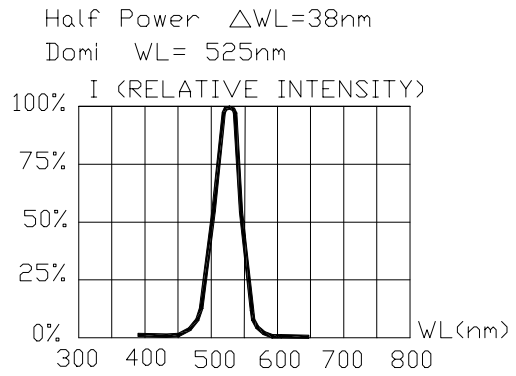


FIG.4 RELATIVE INTENSITY VS. WAVE LENGTH.

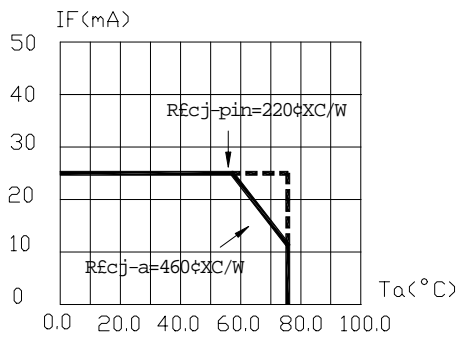


FIG.5 MAXIMUM FORWARD DC CURRENT VS AMBIENT TEMPERATURE. DERATING BASED ON $T_{jmax}=95^{\circ}C$

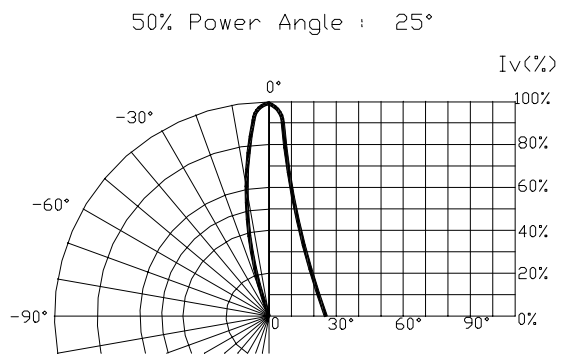


FIG.6 SPATIAL DISTRIBUTION.

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

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