



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

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We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



## Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

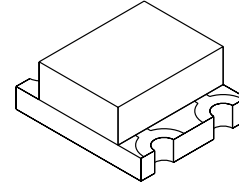
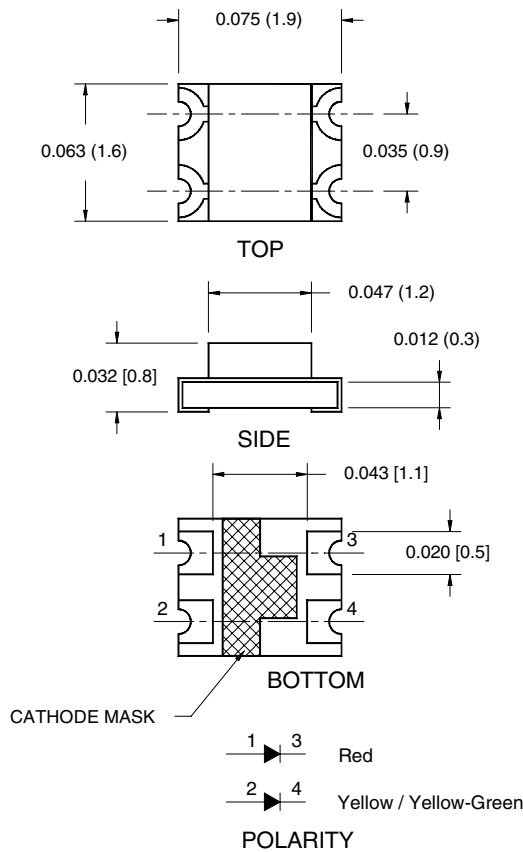
Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



QTLP600C-RY Red/Yellow

QTLP600C-RAG Red/Yellow-Green

### PACKAGE DIMENSIONS



**NOTE:**

Dimensions for all drawings are in inches (mm).

### APPLICATIONS

- Keypad backlighting
- Push-button backlighting
- LCD backlighting

### DESCRIPTION

These super bright bi-color surface mount chip LEDs are designed to fit industry standard footprint. Small size, low profile and wide viewing angle make these LEDs ideal for backlighting applications and panel illumination.

### FEATURES

- Miniature footprint - 1.9(L) X 1.6(W) X 0.8(H) mm
- AllnGaP technology
- Wide viewing angle of 130°
- Water clear optics
- Moisture-proof packaging
- Available in 0.315" (8mm) width tape on 7" (178mm) diameter reel; 2,000 units per reel

**QTLP600C-RY** Red/Yellow

**QTLP600C-RAG** Red/Yellow-Green

**ABSOLUTE MAXIMUM RATINGS** (T<sub>A</sub> =25°C Unless otherwise specified)

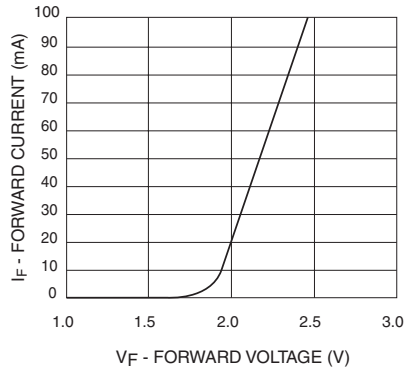
| Parameter   | Symbol           | QTLP600C      |           | Units |
|---|------------------|---------------|-----------|-------|
|   |                  | -RY           | -RAG      |       |
| Continuous Forward Current                                | I <sub>F</sub>   | 30 / 25       | 30 / 30   | mA    |
| Peak Forward Current<br>(f = 1.0 KHz, Duty Factor = 1/10) | I <sub>FM</sub>  | 160 / 120     | 160 / 160 | mA    |
| Reverse Voltage   | V <sub>R</sub>   | 5             | 5         | V     |
| Power Dissipation   | P <sub>D</sub>   | 72 / 60       | 72 / 72   | mW    |
| Operating Temperature                                     | T <sub>OPR</sub> | -40 to +85    |           | °C    |
| Storage Temperature                                       | T <sub>STG</sub> | -40 to +90    |           | °C    |
| Lead Soldering Time                                       | T <sub>SOL</sub> | 260 for 5 sec |           | °C    |

**ELECTRICAL / OPTICAL CHARACTERISTICS** (T<sub>A</sub> =25°C)

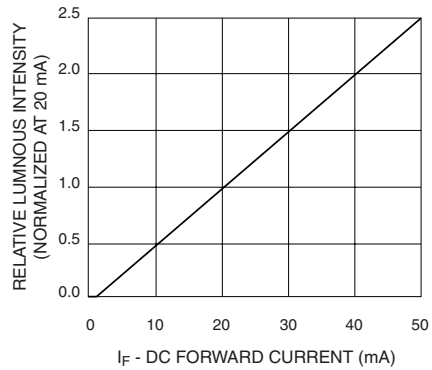
| Parameter                     | Symbol            | QTLP600C  |           | Units                 |
|-------------------------------|-------------------|-----------|-----------|-----------------------|
|                               |                   | -RY       | -RAG      |                       |
| Luminous Intensity (mcd)      | I <sub>V</sub>    | 10 / 10   | 10 / 8    | I <sub>F</sub> = 20mA |
| Minimum                       |                   | 30 / 30   | 30 / 15   |                       |
| Forward Voltage (V)           | V <sub>F</sub>    | 2.4 / 2.4 | 2.4 / 2.4 | I <sub>F</sub> = 20mA |
| Maximum                       |                   | 2.0 / 2.0 | 2.0 / 2.0 |                       |
| Wavelength (nm)               | λ <sub>P</sub>    | 630 / 590 | 630 / 575 | I <sub>F</sub> = 20mA |
| Peak                          |                   | 624 / 589 | 624 / 573 |                       |
| Dominant                      | λ <sub>D</sub>    | 20 / 15   | 20 / 20   | I <sub>F</sub> = 20mA |
| Spectral Line Half Width (nm) | Δλ                | 130       | 130       | I <sub>F</sub> = 20mA |
| Viewing Angle (°)             | 2Θ <sub>1/2</sub> |           |           |                       |

**TYPICAL PERFORMANCE CURVES**

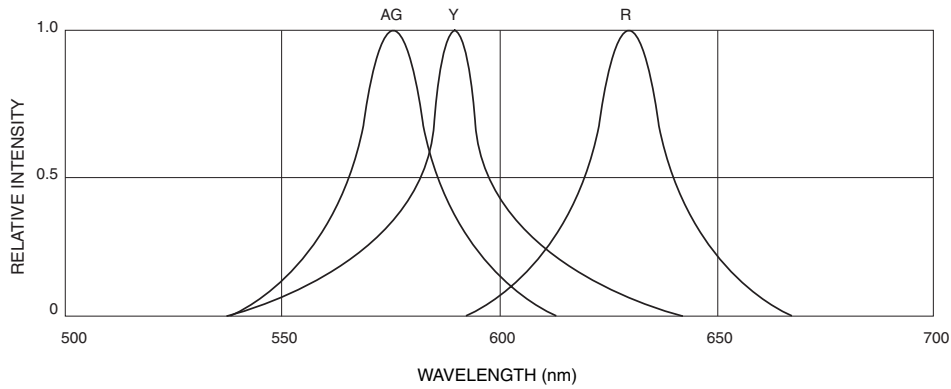
**Fig. 1 Forward Current vs. Forward Voltage**



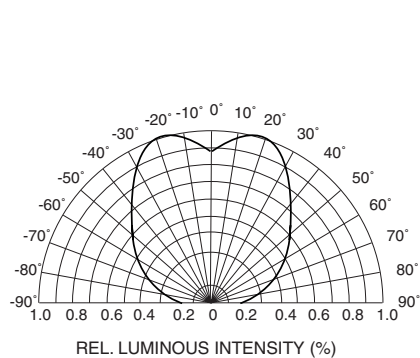
**Fig. 2 Relative Luminous Intensity vs. DC Forward Current**



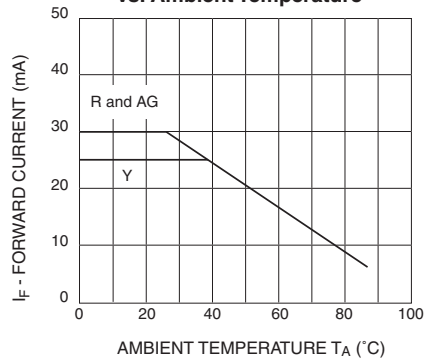
**Fig. 3 Relative Intensity vs. Peak Wavelength**



**Fig.4 Radiation Diagram**



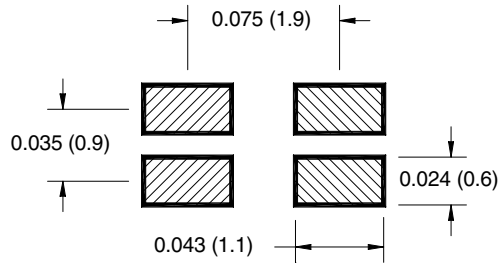
**Fig.5 Maximum Forward Current vs. Ambient Temperature**



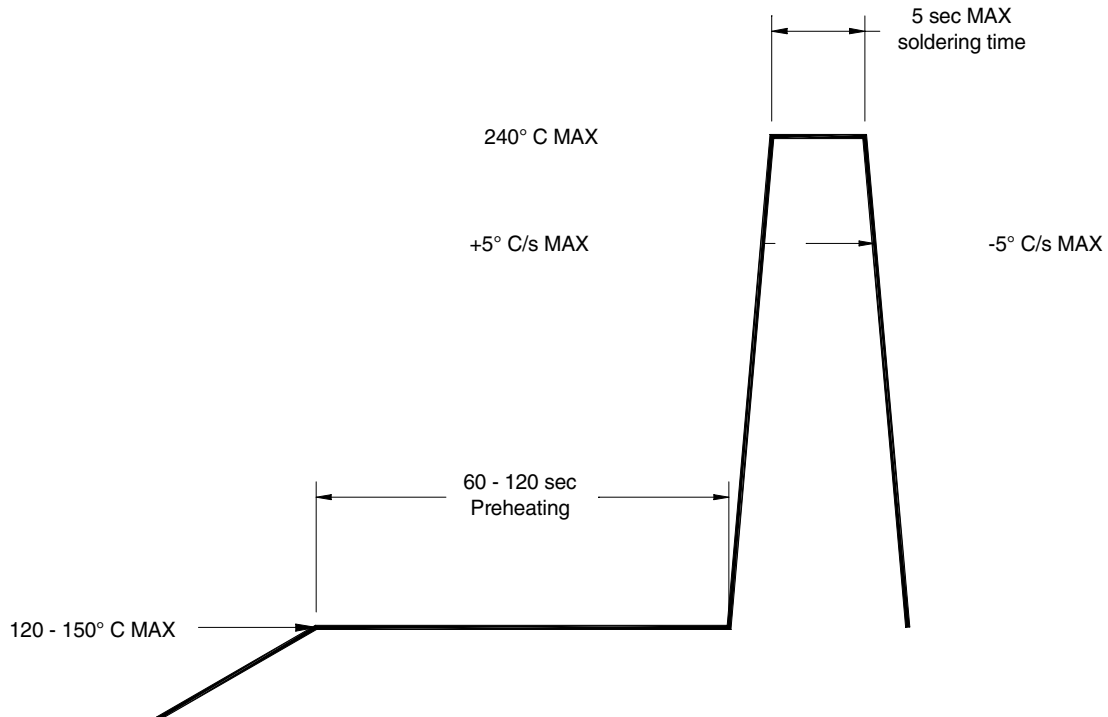
**QTLP600C-RY Red/Yellow**

**QTLP600C-RAG Red/Yellow-Green**

**RECOMMENDED PRINTED CIRCUIT BOARD PATTERN**



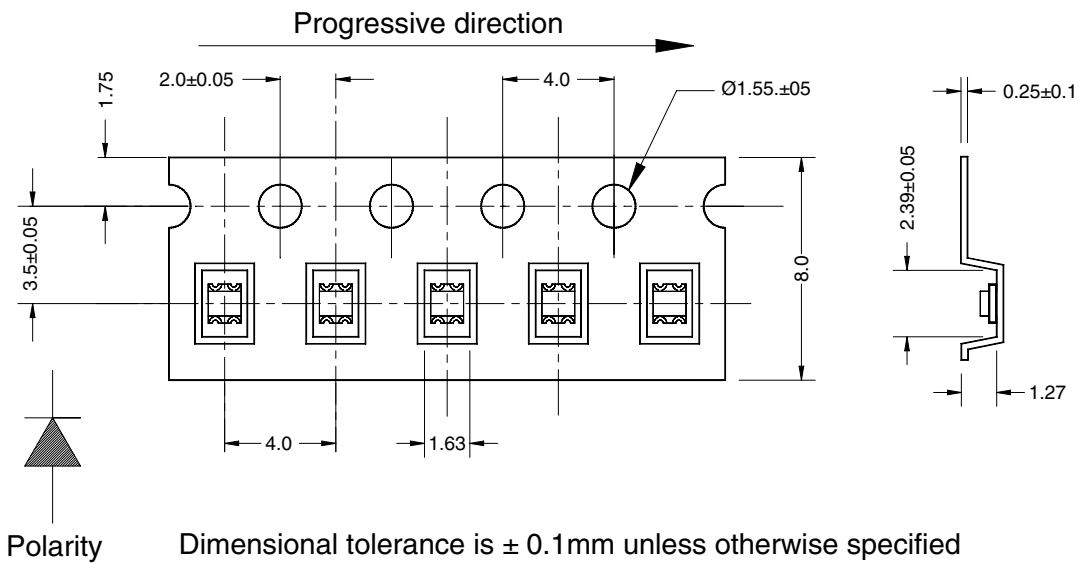
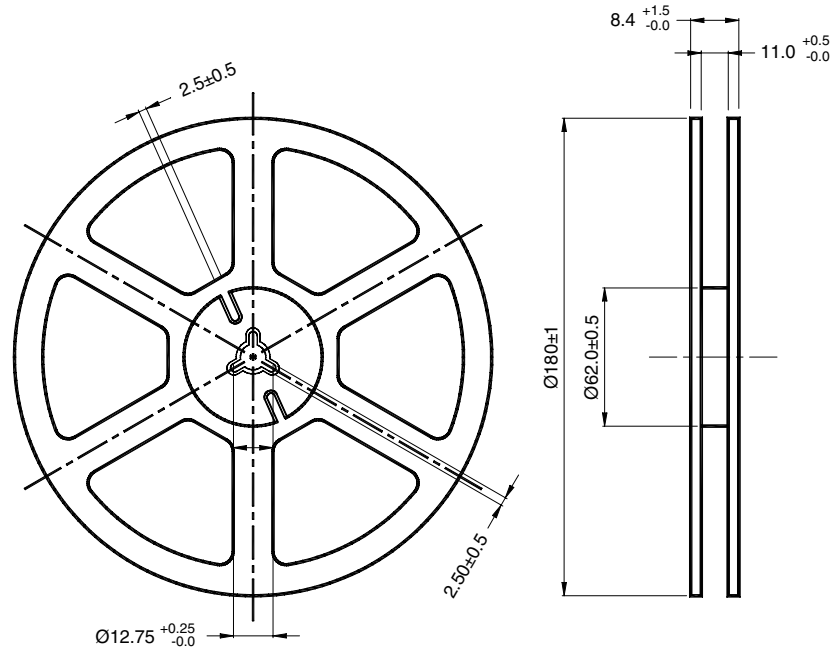
**RECOMMENDED IR REFLOW SOLDERING PROFILE**



QTLP600C-RY Red/Yellow

QTLP600C-RAG Red/Yellow-Green

**TAPE AND REEL DIMENSIONS**



Dimensional tolerance is  $\pm 0.1$ mm unless otherwise specified

Angle:  $\pm 0.5$

Unit: mm

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**QTLP600C-RY** Red/Yellow

**QTLP600C-RAG** Red/Yellow-Green

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