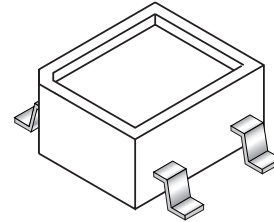
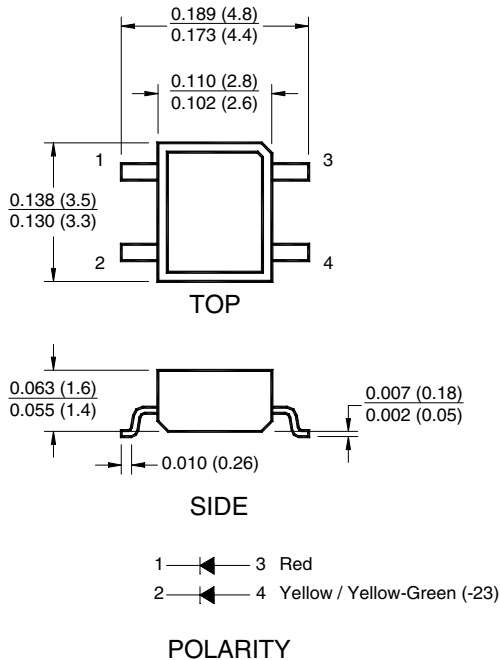


QTLP680C-RY Red/Yellow

QTLP680C-RAG Red/Yellow-Green

PACKAGE DIMENSIONS



NOTE:

Dimensions for all drawings are in inches (mm).

APPLICATIONS

- Backlighting
- Status indication for consumer electronics and other equipment

DESCRIPTION

Designed with a reflective housing, these super bright surface mount LEDs offer uniform lighting and high light output performance.

FEATURES

- Reflector package
- AlInGaP 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

SURFACE MOUNT LED LAMP

SUPER BRIGHT REFLECTOR

(DUAL COLOR)

QTLP680C-RY Red/Yellow

QTLP680C-RAG Red/Yellow-Green

ABSOLUTE MAXIMUM RATINGS (T_A =25°C Unless otherwise specified)

| Parameter | Symbol | QTLP680C | | Units |
|---|------------------|---------------|-----------|-------|
| | | -RY | -RAG | |
| Continuous Forward Current | I _F | 30 / 25 | 30 / 30 | mA |
| Peak Forward Current (f = 1.0 KHz, Duty Factor = 1/10) | I _{FM} | 160 / 120 | 160 / 160 | mA |
| Reverse Voltage | V _R | 5 | 5 | V |
| Power Dissipation | P _D | 72 / 60 | 72 / 72 | mW |
| Operating Temperature | T _{OPR} | -40 to +85 | | °C |
| Storage Temperature | T _{STG} | -40 to +90 | | °C |
| Lead Soldering Time | T _{SOL} | 260 for 5 sec | | °C |

ELECTRICAL / OPTICAL CHARACTERISTICS (T_A =25°C)

| Parameter | Symbol | QTLP680C | | Units |
|-------------------------------|-------------------|-----------|-----------|-----------------------|
| | | -RY | -RAG | |
| Luminous Intensity (mcd) | I _V | 15 / 15 | 15 / 10 | I _F = 20mA |
| Minimum | | 35 / 35 | 35 / 20 | |
| Typical | | | | |
| Forward Voltage (V) | V _F | 2.4 / 2.4 | 2.4 / 2.4 | I _F = 20mA |
| Maximum | | 2.0 / 2.0 | 2.0 / 2.0 | |
| Typical | | | | |
| Wavelength (nm) | λ _P | 630 / 590 | 630 / 575 | I _F = 20mA |
| Peak | | 624 / 589 | 624 / 573 | |
| Dominant | λ _D | | | |
| Spectral Line Half Width (nm) | Δλ | 20 / 15 | 20 / 20 | I _F = 20mA |
| Viewing Angle (°) | 2Θ _{1/2} | 130 | 130 | I _F = 20mA |

TYPICAL PERFORMANCE CURVES

Fig. 1 Forward Current vs. Forward Voltage

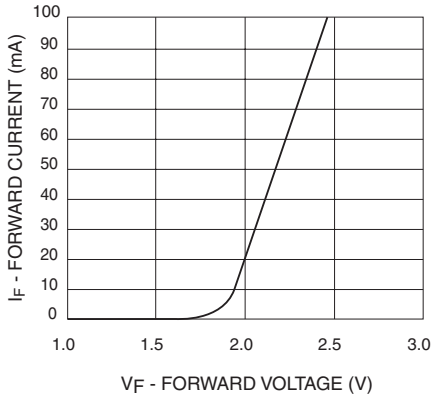


Fig. 2 Relative Luminous Intensity vs. DC Forward Current

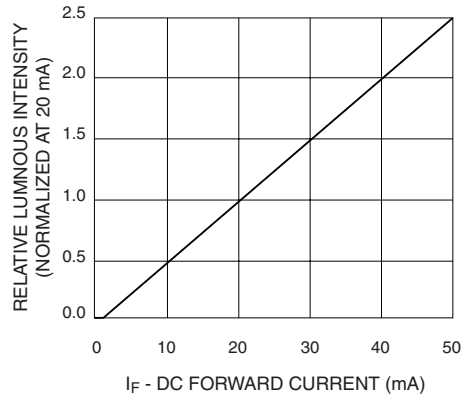


Fig. 3 Relative Intensity vs. Peak Wavelength

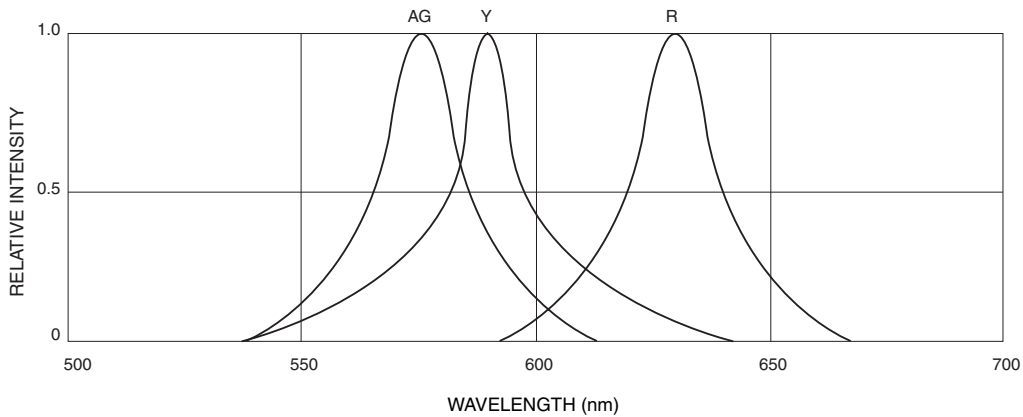


Fig.4 Radiation Diagram

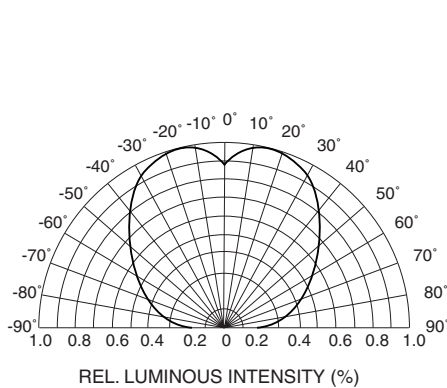
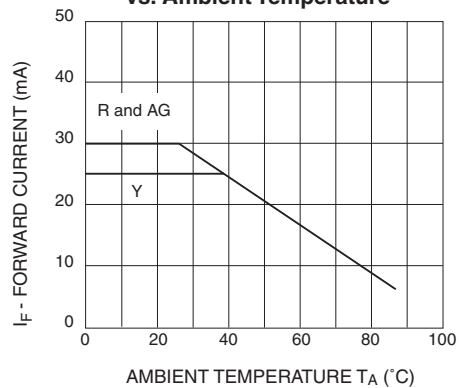


Fig.5 Maximum Forward Current vs. Ambient Temperature

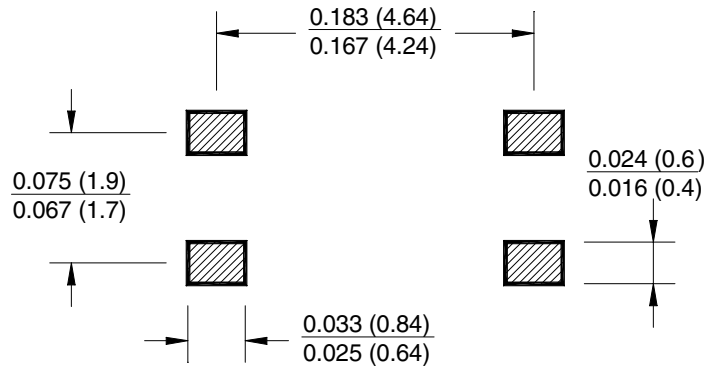


SURFACE MOUNT LED LAMP SUPER BRIGHT REFLECTOR (DUAL COLOR)

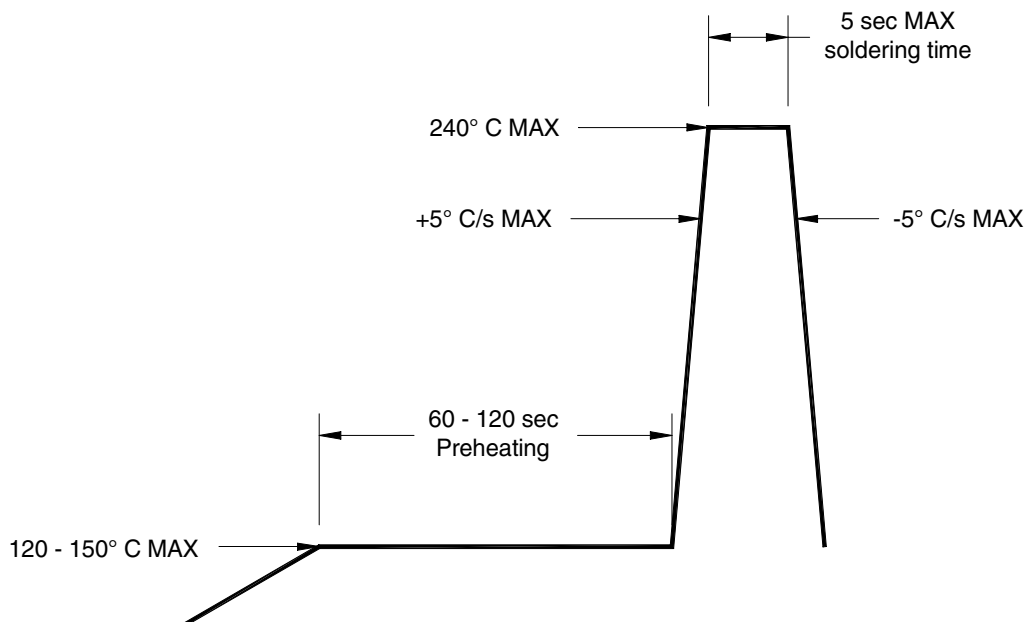
QTLP680C-RY Red/Yellow

QTLP680C-RAG Red/Yellow-Green

RECOMMENDED PRINTED CIRCUIT BOARD PATTERN



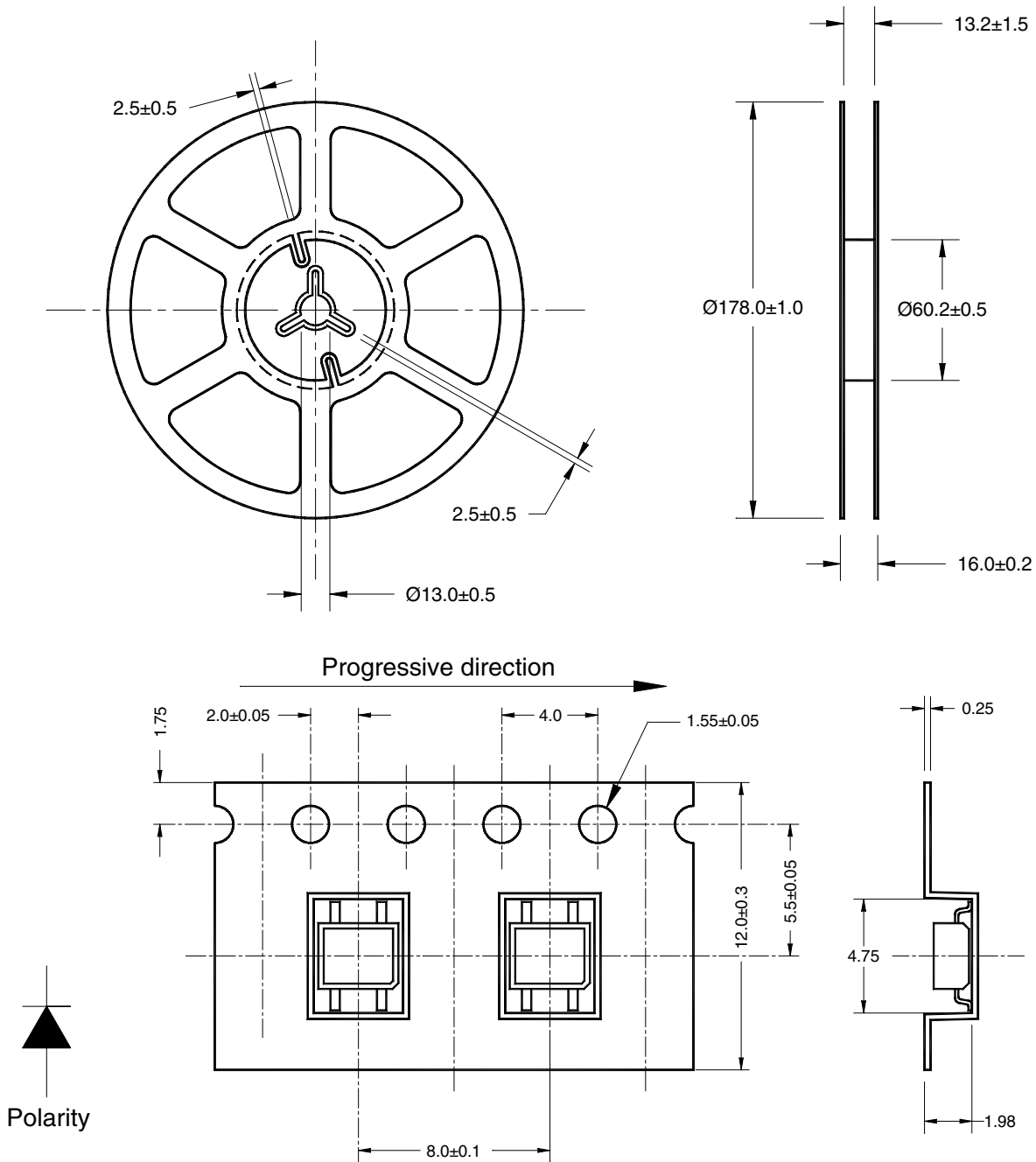
RECOMMENDED IR REFLOW SOLDERING PROFILE



QTLP680C-RY Red/Yellow

QTLP680C-RAG Red/Yellow-Green

TAPE AND REEL DIMENSIONS



Dimensional tolerance is $\pm 0.1\text{mm}$ unless otherwise specified
Angle: ± 0.5
Unit: mm

QTLP680C-RY Red/Yellow

QTLP680C-RAG Red/Yellow-Green

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2. A critical component in any component of a life support device or system whose failure to perform can be reasonably expected to cause the failure of the life support device or system, or to affect its safety or effectiveness.