

QTLP680C-R Red

QTLP680C-E Orange

QTLP680C-O Yellow-Orange

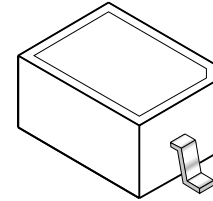
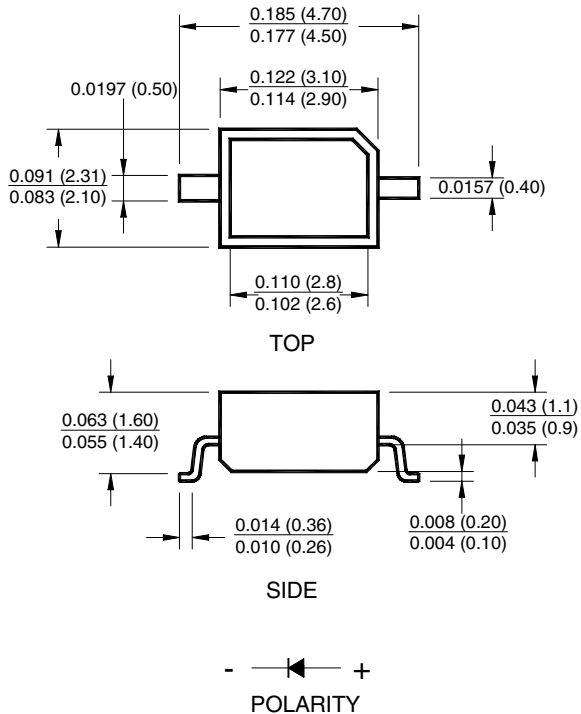
QTLP680C-Y Yellow

QTLP680C-AG Yellow-Green

QTLP680C-IG True Green

QTLP680C-IB Blue

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
- AllInGaP technology for -R, -E, -O, -Y and -AG
- InGaN/SiC technology for -IG and -IB
- 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

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ABSOLUTE MAXIMUM RATINGS ($T_A = 25^\circ\text{C}$ Unless otherwise specified)

Parameter	Symbol	QTLP680C					Units
		-R	-E	-O	-Y	-AG	
Continuous Forward Current	I_F	30	30	30	25	30	mA
Peak Forward Current ($f = 1.0\text{ KHz}$, Duty Factor = 1/10)	I_{FM}	160	160	160	120	160	mA
Reverse Voltage	V_R	5	5	5	5	5	V
Power Dissipation	P_D	72	72	72	60	72	mW
Operating Temperature	T_{OPR}	-40 to +85					$^\circ\text{C}$
Storage Temperature	T_{STG}	-40 to +90					$^\circ\text{C}$
Lead Soldering Time	T_{SOL}	260 for 5 sec					$^\circ\text{C}$

ABSOLUTE MAXIMUM RATINGS ($T_A = 25^\circ\text{C}$ Unless otherwise specified)

Parameter	Symbol	QTLP680C		Units
		-IB	-IG	
Continuous Forward Current	I_F	30	30	mA
Peak Forward Current ($f = 1.0\text{ KHz}$, Duty Factor = 1/10)	I_{FM}	100	100	mA
Reverse Voltage	V_R	5	5	V
Power Dissipation	P_D	120	120	mW
Operating Temperature	T_{OPR}	-40 to +85		$^\circ\text{C}$
Storage Temperature	T_{STG}	-40 to +90		$^\circ\text{C}$
Lead Soldering Time	T_{SOL}	260 for 5 sec		$^\circ\text{C}$

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Fig. 1 Forward Current vs. Forward Voltage

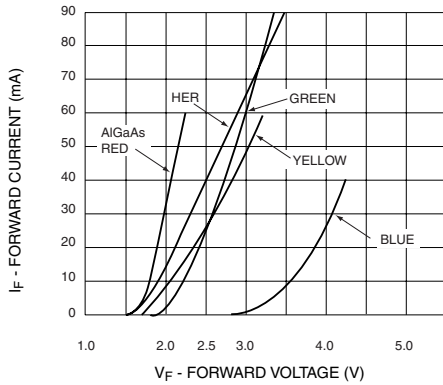


Fig. 2 Relative Luminous Intensity vs. DC Forward Current

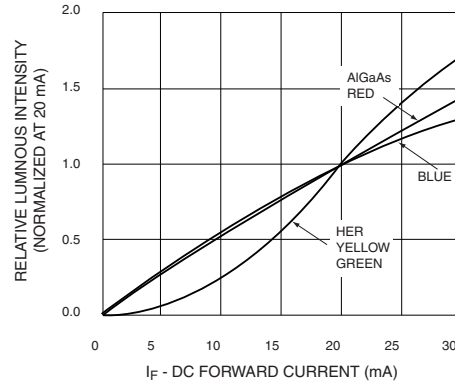


Fig. 3 Relative Intensity vs. Peak Wavelength

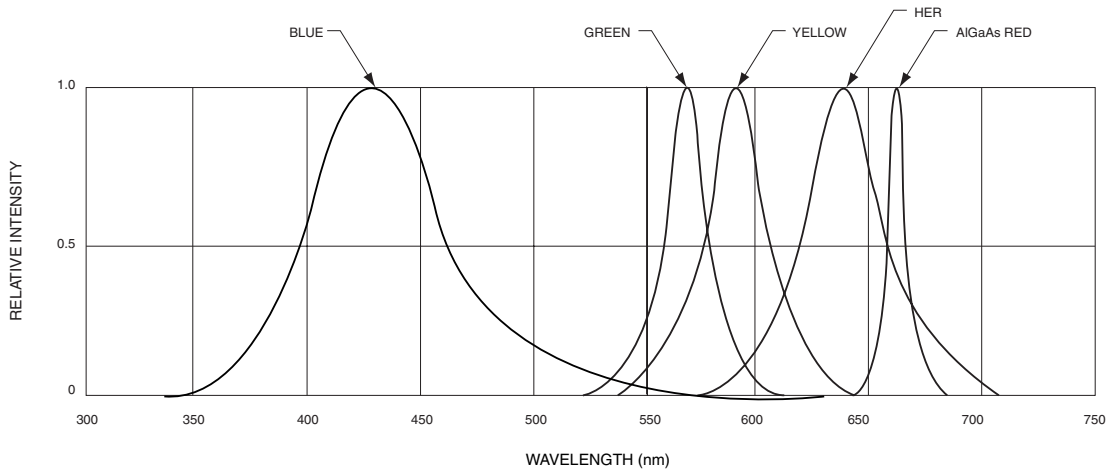


Fig. 4 Radiation Diagram

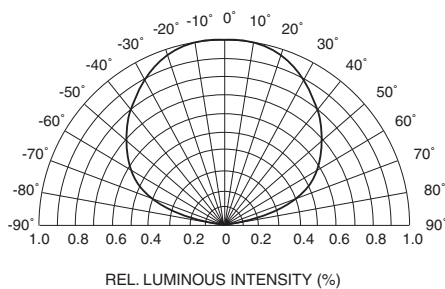
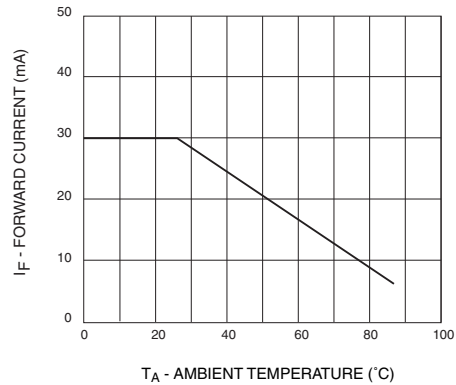


Fig. 5 Maximum Forward Current vs. Ambient Temperature



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TYPICAL PERFORMANCE CURVES (QTLP680C-R, -E, -O, -Y and -AG)

Fig. 1 Forward Current vs. Forward Voltage

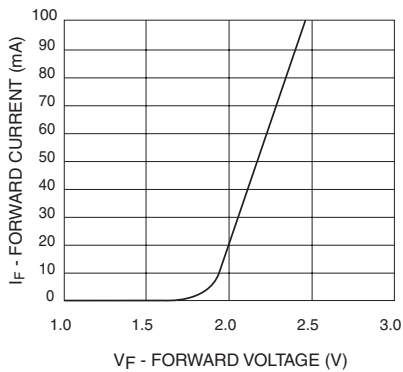


Fig. 2 Relative Luminous Intensity vs. DC Forward Current

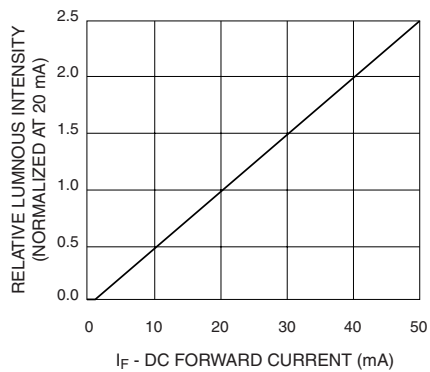


Fig. 3 Relative Intensity vs. Peak Wavelength

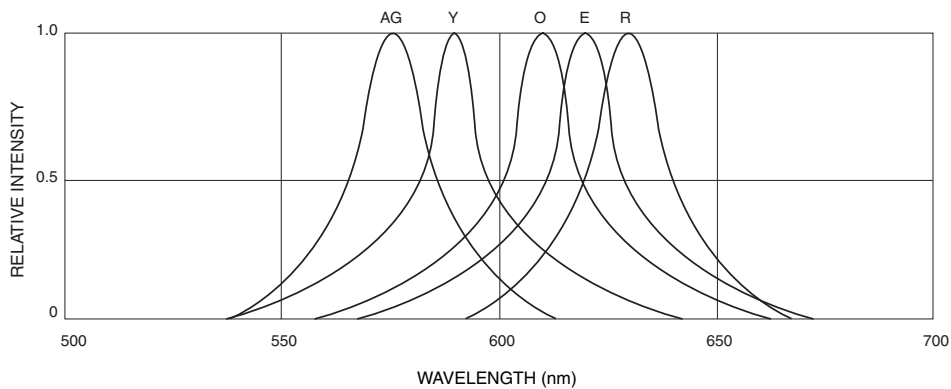


Fig.4 Radiation Diagram

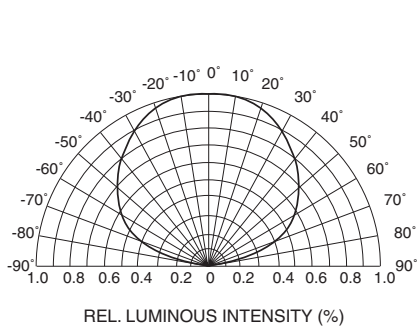
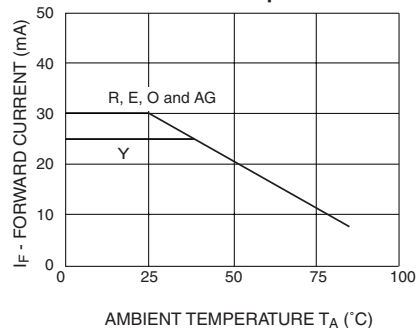


Fig.5 Maximum Forward Current vs. Ambient Temperature



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TYPICAL PERFORMANCE CURVES (QTLP680C-IG and IB)

Fig. 1 Forward Current vs. Forward Voltage

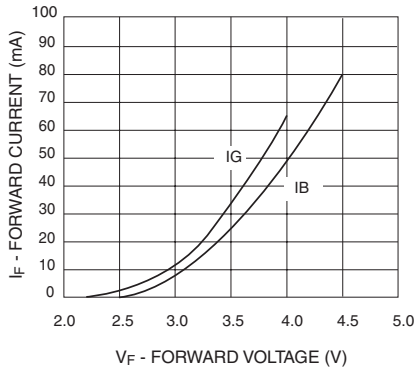


Fig. 2 Relative Luminous Intensity vs. DC Forward Current

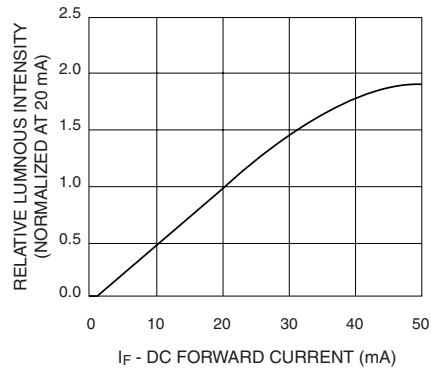


Fig. 3 Relative Intensity vs. Peak Wavelength

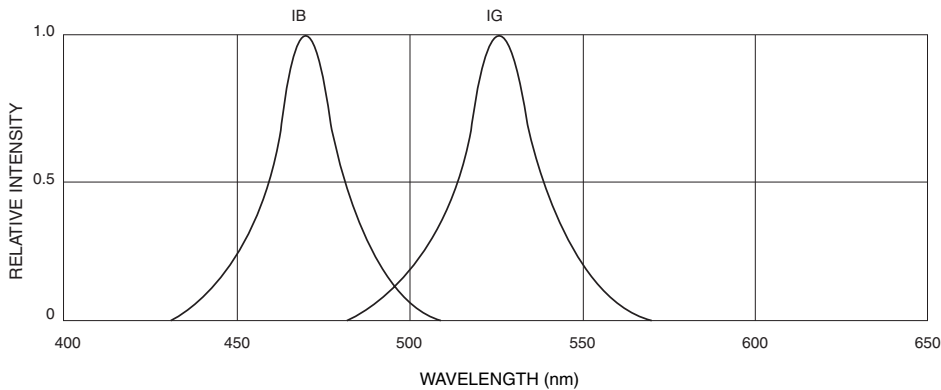


Fig.4 Radiation Diagram

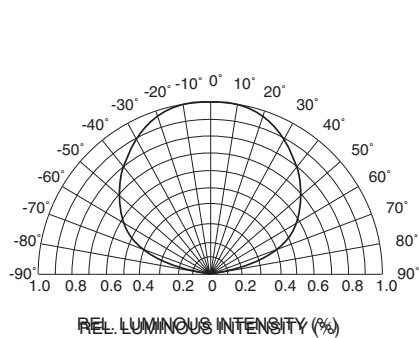
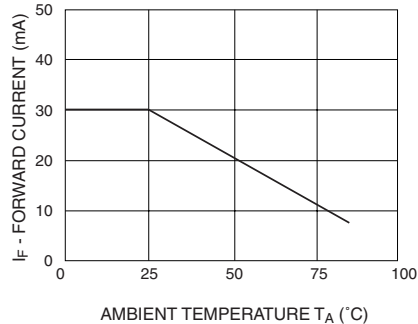


Fig.5 Maximum Forward Current vs. Ambient Temperature



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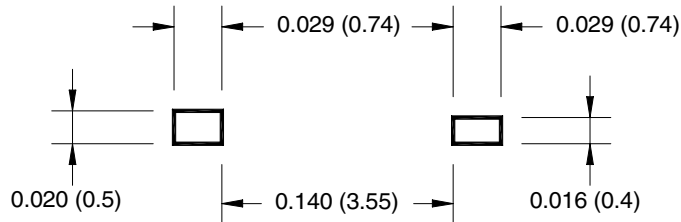
QTLP680C-Y Yellow

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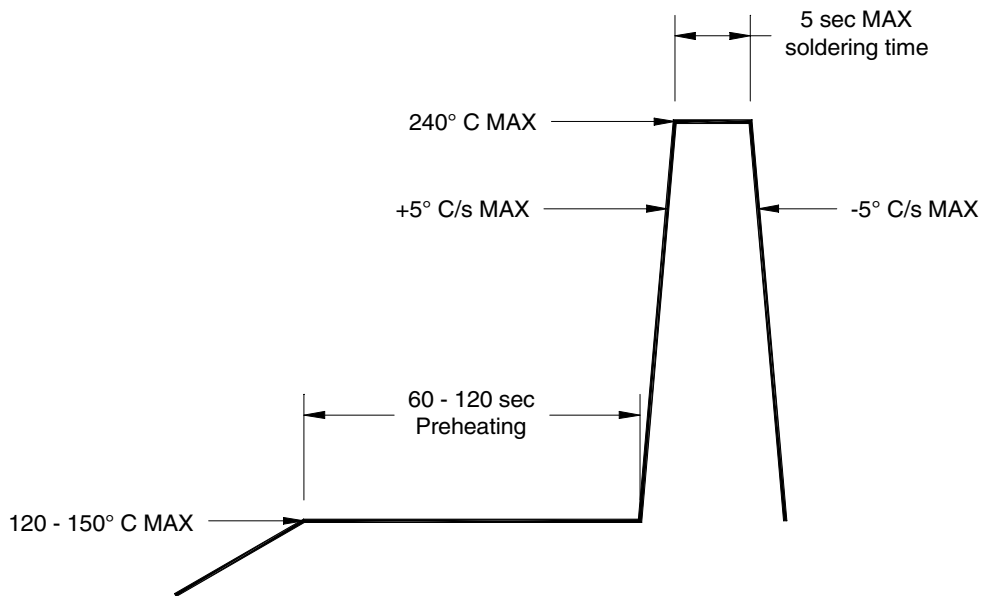
QTLP680C-IG True Green

QTLP680C-IB Blue

RECOMMENDED PRINTED CIRCUIT BOARD PATTERN



RECOMMENDED IR REFLOW SOLDERING PROFILE



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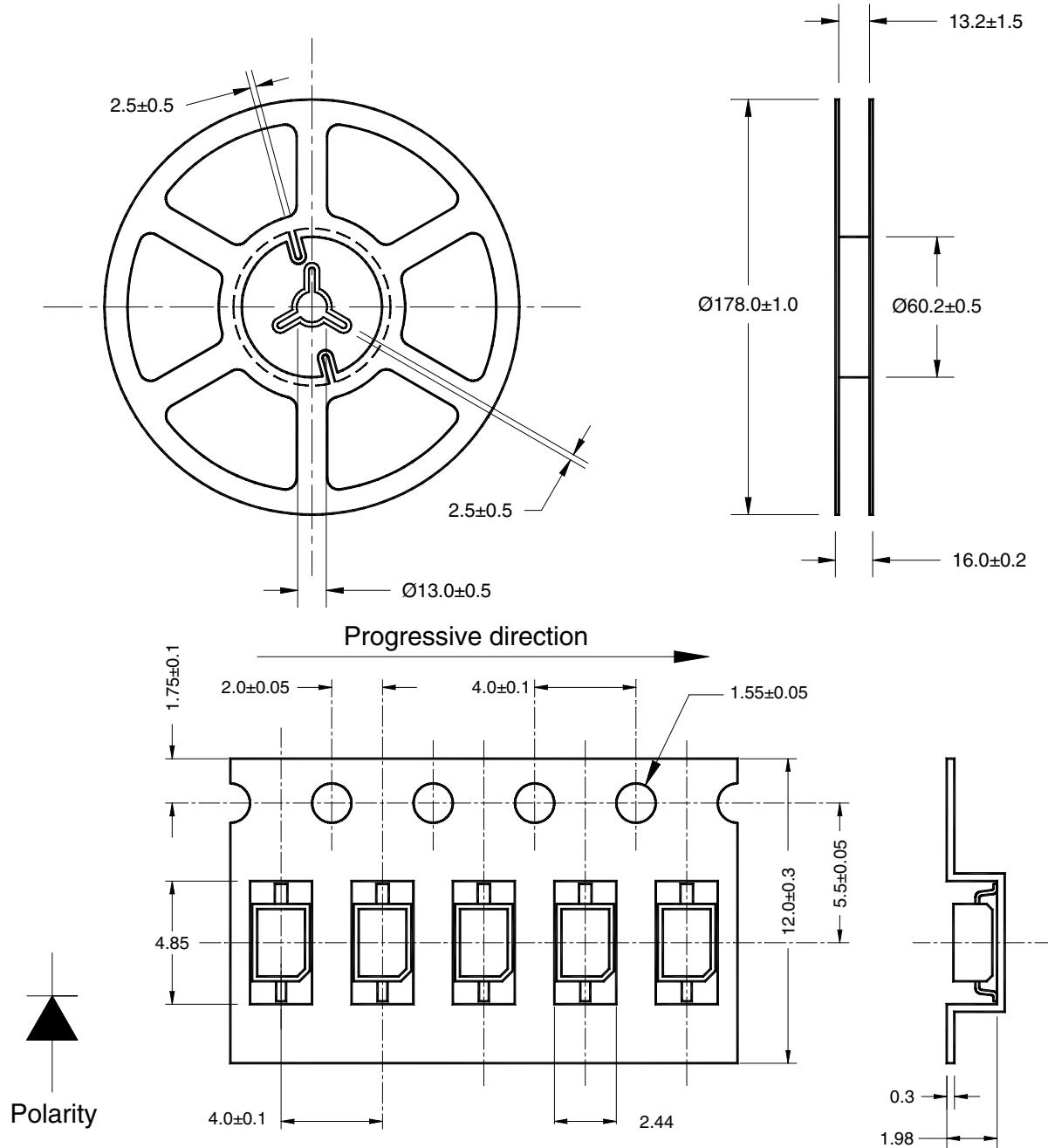
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TAPE AND REEL DIMENSIONS



Dimensional tolerance is ± 0.1 mm unless otherwise specified

Angle: ± 0.5

Unit: mm

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