

QTLP680C-2 HER

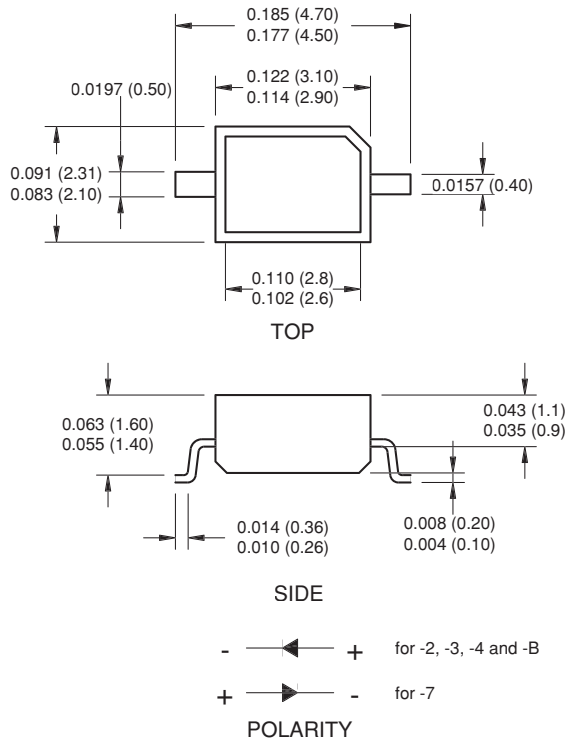
QTLP680C-3 Yellow

QTLP680C-4 Green

QTLP680C-7 AlGaAs Red

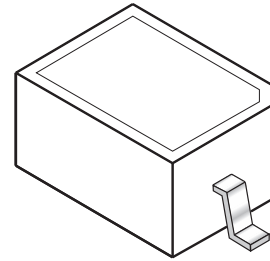
QTLP680C-B Blue

PACKAGE DIMENSIONS



NOTE:

1. 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 surface mount LEDs offer uniform lighting and high light output performance.

FEATURES

- 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 STANDARD BRIGHT REFLECTOR

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

Parameter	Symbol	QTLP680C					Units
		-2	-3	-4	-7	-B	
Continuous Forward Current	I_F	30	30	30	30	30	mA
Peak Forward Current ($f = 1.0 \text{ KHz}$, Duty Factor = 1/10)	I_{FM}	160	160	160	180	100	mA
Reverse Voltage ($I_R = 10 \mu\text{A}$)	V_R	5	5	5	5	5	V
Power Dissipation	P_D	84	84	84	72	135	mW
Operating Temperature	T_{OPR}	-40 to +85					$^\circ\text{C}$
Storage Temperature	T_{STG}	-40 to +100					$^\circ\text{C}$
Lead Soldering Time	T_{SOL}	260 for 5 sec					$^\circ\text{C}$

ELECTRICAL / OPTICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$)

Part Number	Symbol	QTLP680C					Condition
		-2	-3	-4	-7	-B	
Luminous Intensity (mcd)	I_V	7	7	15	25	15	$I_F = 20\text{mA}$
Minimum		15	15	25	40	20	
Typical	V_F	2.8	2.8	2.8	2.4	4.5	$I_F = 20\text{mA}$
Forward Voltage (V)		2.0	2.0	2.1	1.9	3.8	
Maximum	λ_P	635	585	565	660	430	$I_F = 20\text{mA}$
Typical		630	590	570	645	465	
Wavelength (nm)	λ_D	45	35	30	20	65	$I_F = 20\text{mA}$
Peak	$\Delta\lambda$	130	130	130	130	130	$I_F = 20\text{mA}$
Dominant	$2\theta_{1/2}$						
Spectral Line Half Width (nm)							
Viewing Angle ($^\circ$)							

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TYPICAL PERFORMANCE CURVES

Fig. 1 Forward Current vs. Forward Voltage

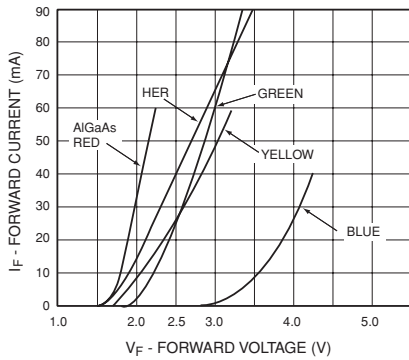


Fig. 2 Relative Luminous Intensity vs. DC Forward Current

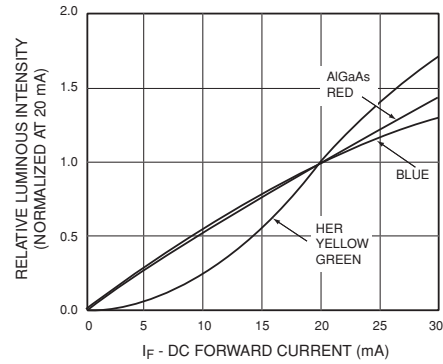


Fig. 3 Relative Intensity vs. Peak Wavelength

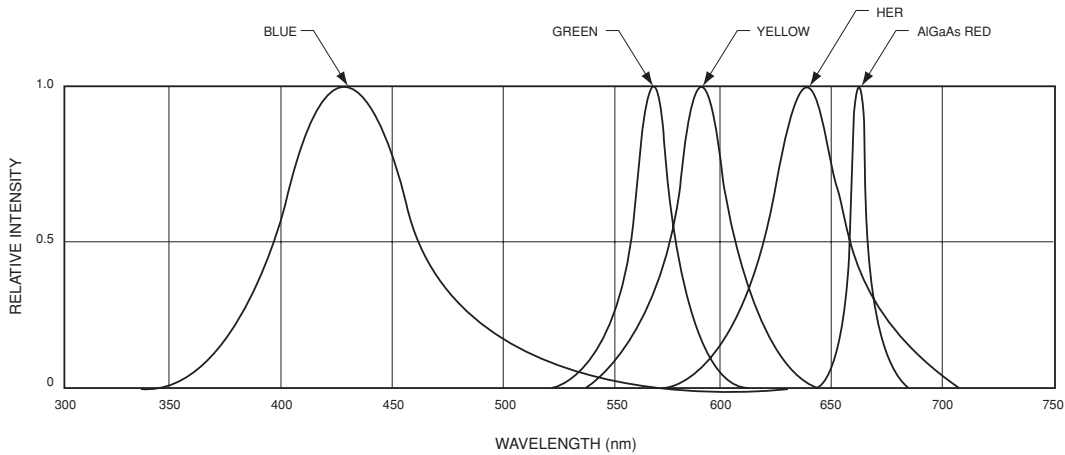


Fig.4 Radiation Diagram

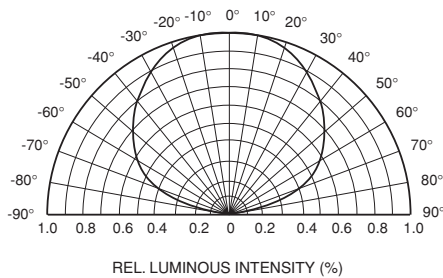
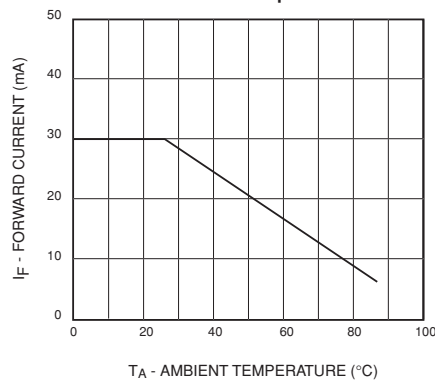


Fig.5 Maximum Forward Current vs. Ambient Temperature



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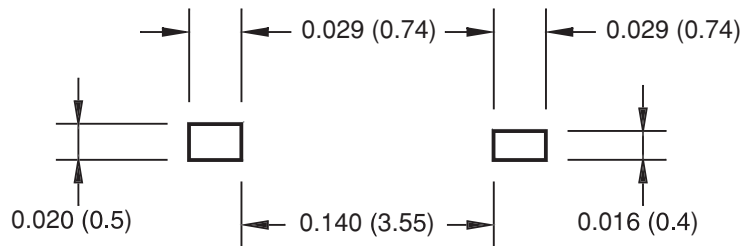
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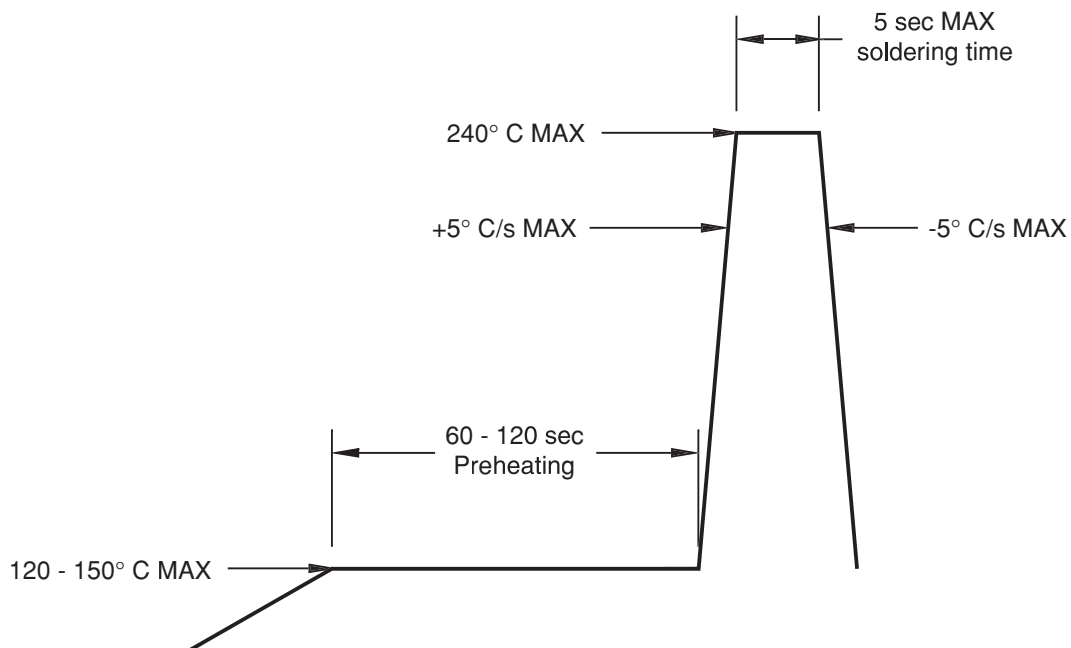
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RECOMMENDED PRINTED CIRCUIT BOARD PATTERN



RECOMMENDED IR REFLOW SOLDERING PROFILE



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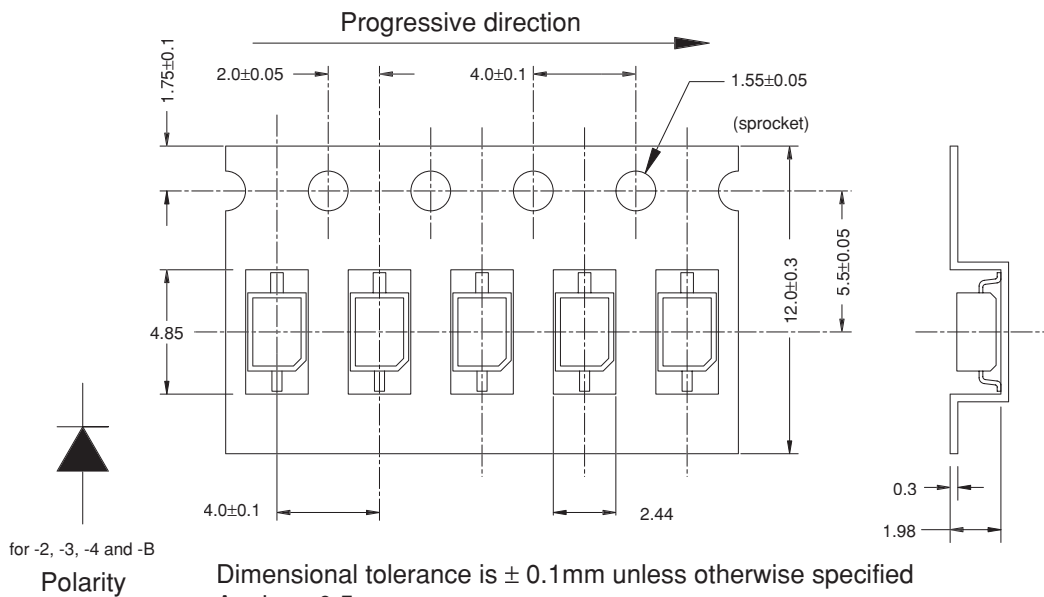
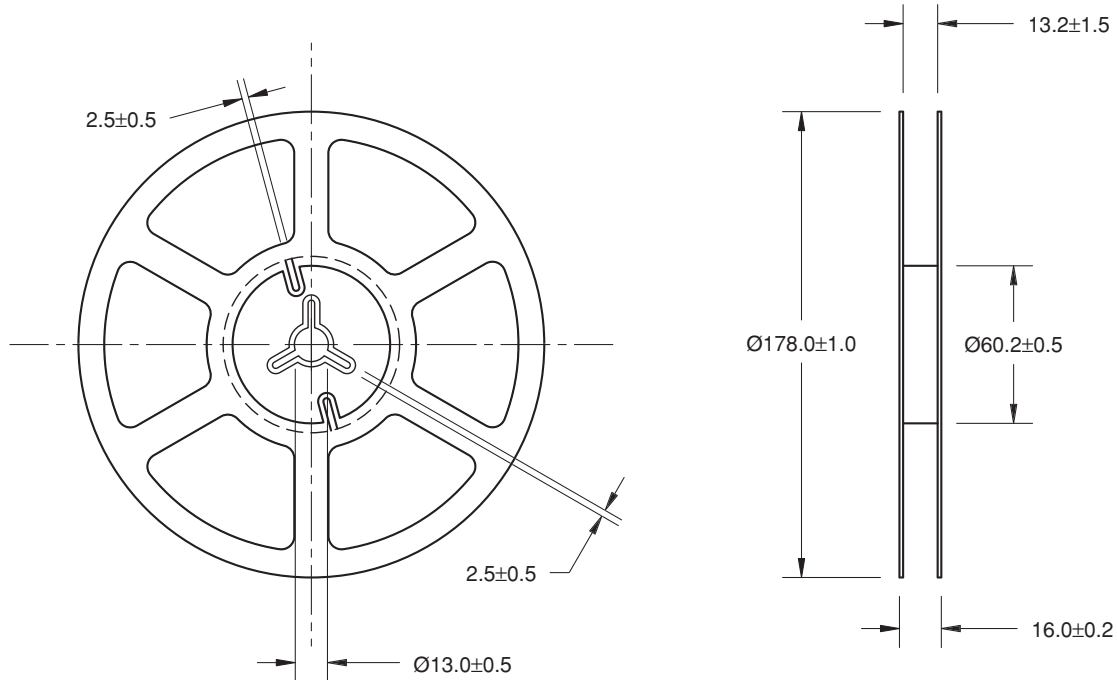
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TAPE AND REEL DIMENSIONS



Dimensional tolerance is ± 0.1 mm unless otherwise specified
 Angle: ± 0.5
 Unit: mm
 Polarity marks are on the opposite sprocket side.

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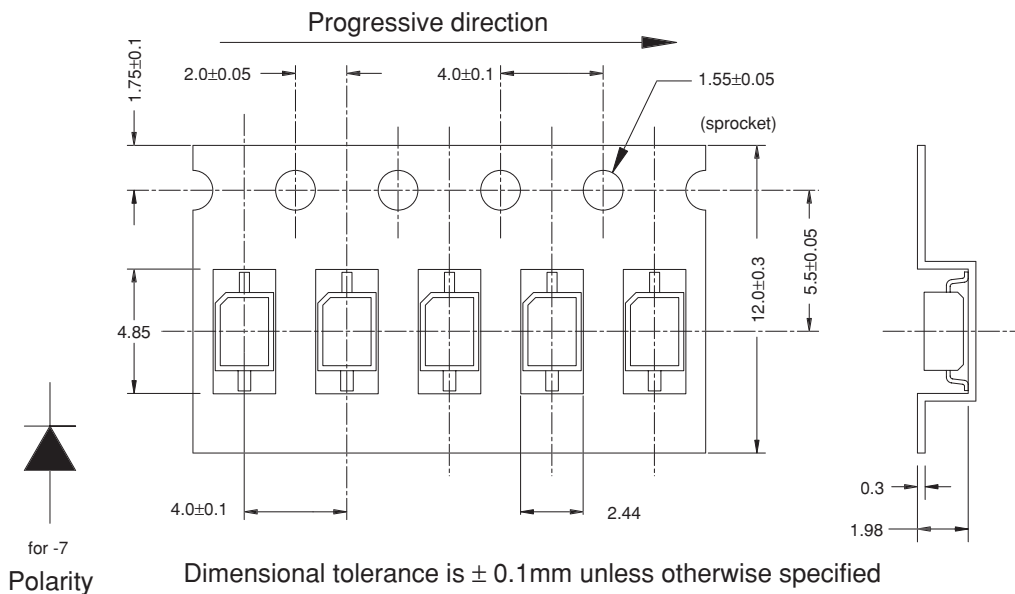
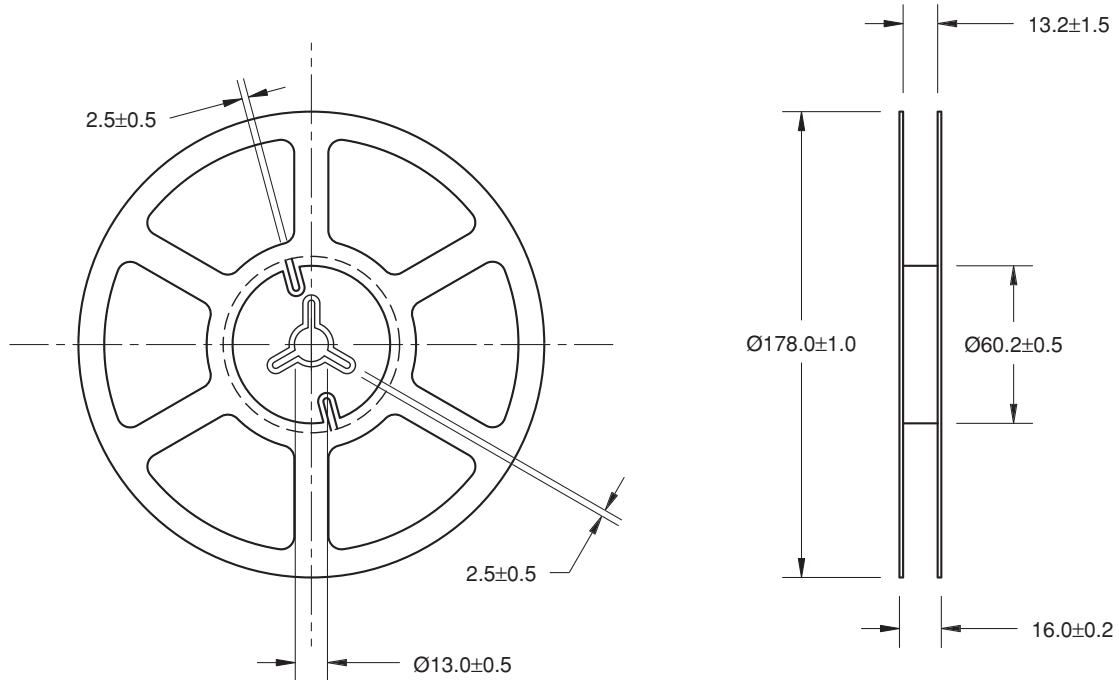
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