

QTLP610C-2 HER

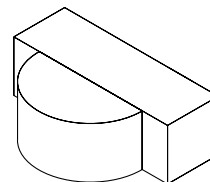
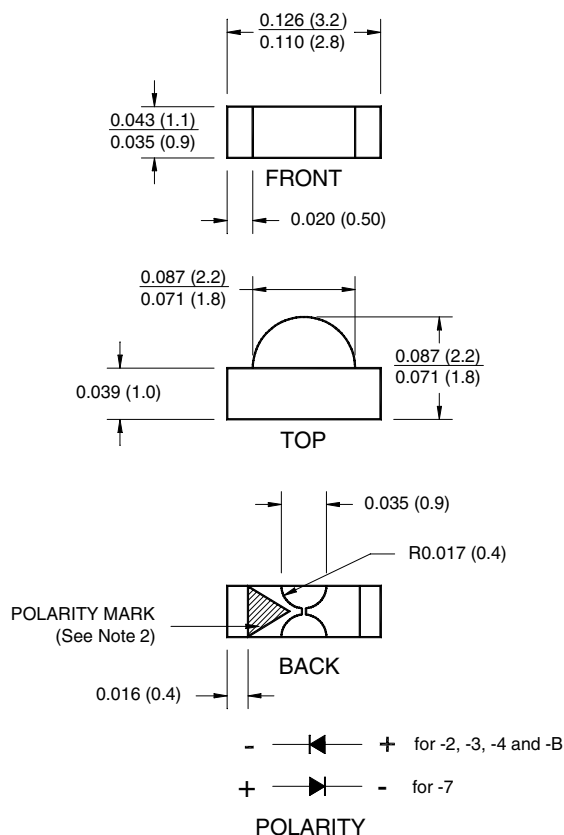
QTLP610C-3 Yellow

QTLP610C-4 Green

QTLP610C-7 AlGaAs Red

QTLP610C-B Blue

PACKAGE DIMENSIONS



APPLICATIONS

- LCD edge-lighting
- Edge card edge-lighting

DESCRIPTION

These right angle surface mount chip LEDs emit light in the lateral direction. Small size and wide viewing angle make these LEDs ideal choices for status indication in consumer electronics, industrial control and other applications.

FEATURES

- Small footprint - 3.0(L) X 2.0(W) X 1.0(H) mm
- Wide viewing angle of 120°
- 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 RIGHT ANGLE

QTLP610C-2 HER

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QTLP610C-B Blue

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

Parameter	Symbol	QTLP610C					Units
		-2	-3	-4	-7	-B	
Continuous Forward Current	I _F	30	30	30	30	30	mA
Peak Forward Current (f = 1.0 KHz, Duty Factor = 1/10)	I _{FM}	160	160	160	180	100	mA
Reverse Voltage (I _R = 10 μA)	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					°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)

Part Number	Symbol	QTLP610C					Condition
		-2	-3	-4	-7	-B	
Luminous Intensity (mcd)	I _V						I _F = 20mA
Minimum		3	3	5	10	15	
Typical		7	7	10	20	25	
Forward Voltage (V)	V _F						I _F = 20mA
Maximum		2.8	2.8	2.8	2.4	4.5	
Typical		2.0	2.0	2.1	1.9	3.8	
Wavelength (nm)	λ _P						I _F = 20mA
Peak		635	585	565	660	430	
Dominant	λ _D	630	590	570	645	465	
Spectral Line Half Width (nm)	Δλ	45	35	30	20	65	I _F = 20mA
Viewing Angle (°)	2θ _{1/2}	120	120	120	120	120	I _F = 20mA

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TYPICAL PERFORMANCE CURVES

Fig. 1 Forward Current vs. Forward Voltage

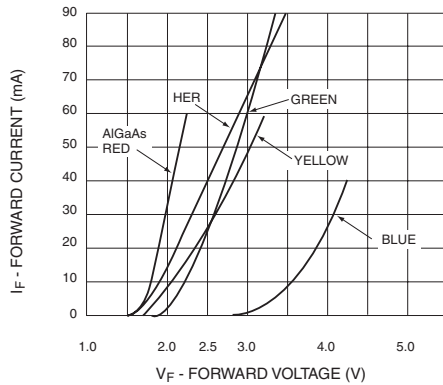


Fig. 2 Relative Luminous Intensity vs. DC Forward Current

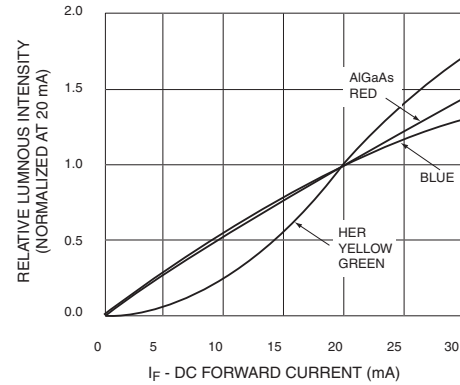


Fig. 3 Relative Intensity vs. Peak Wavelength

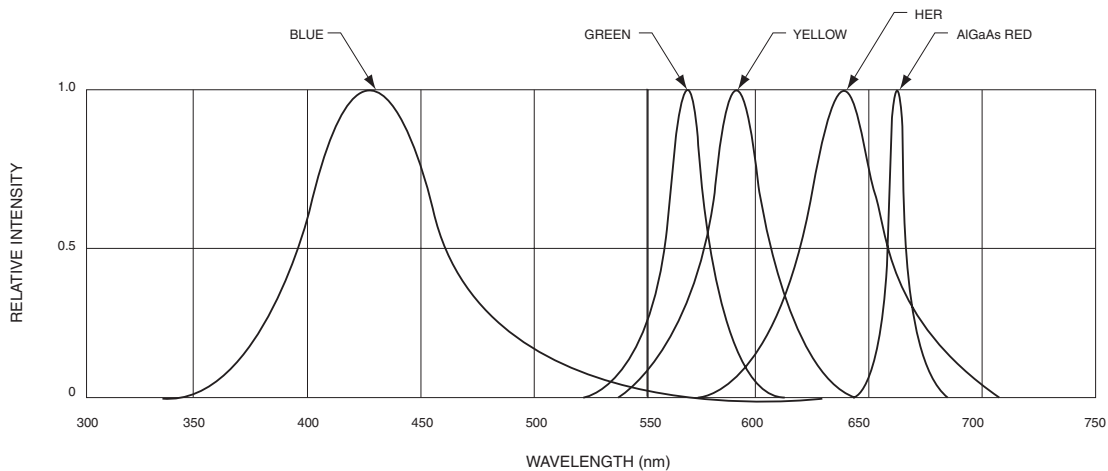


Fig. 4 Radiation Diagram

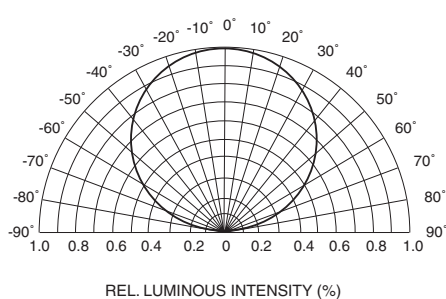
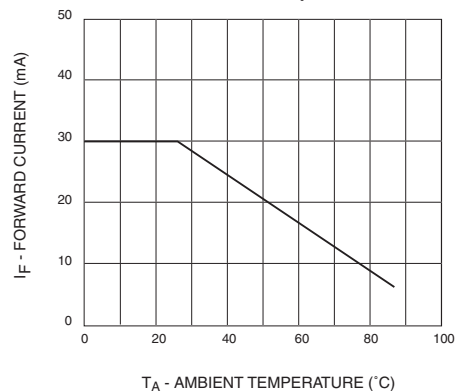


Fig. 5 Maximum Forward Current vs. Ambient Temperature



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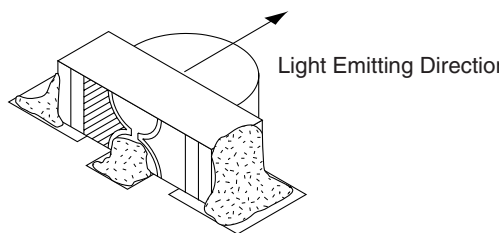
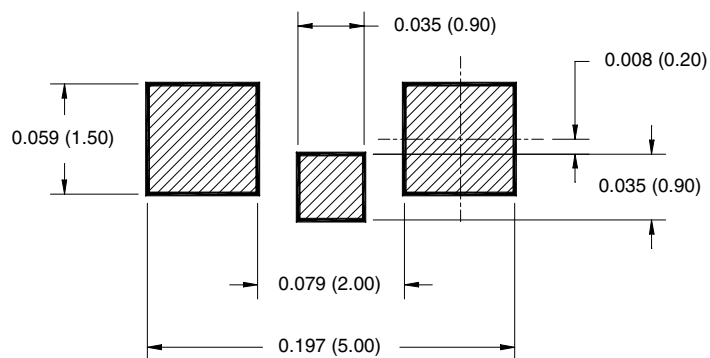
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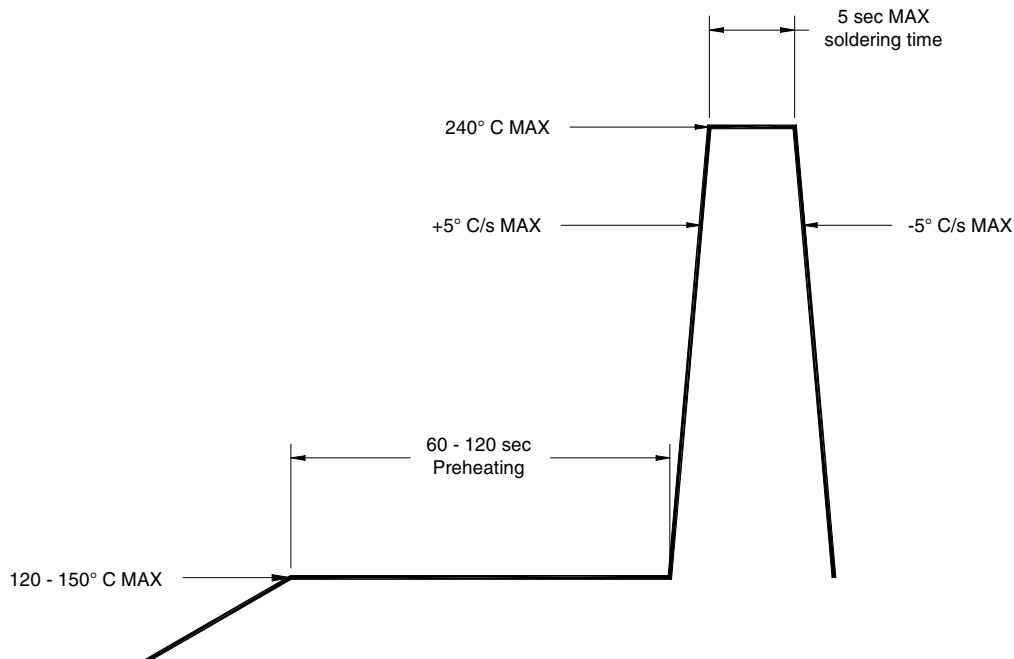
QTLP610C-B Blue

RECOMMENDED PRINTED CIRCUIT BOARD PATTERN



Mounting Example

RECOMMENDED IR REFLOW SOLDERING PROFILE



SURFACE MOUNT LED LAMP

STANDARD BRIGHT RIGHT ANGLE

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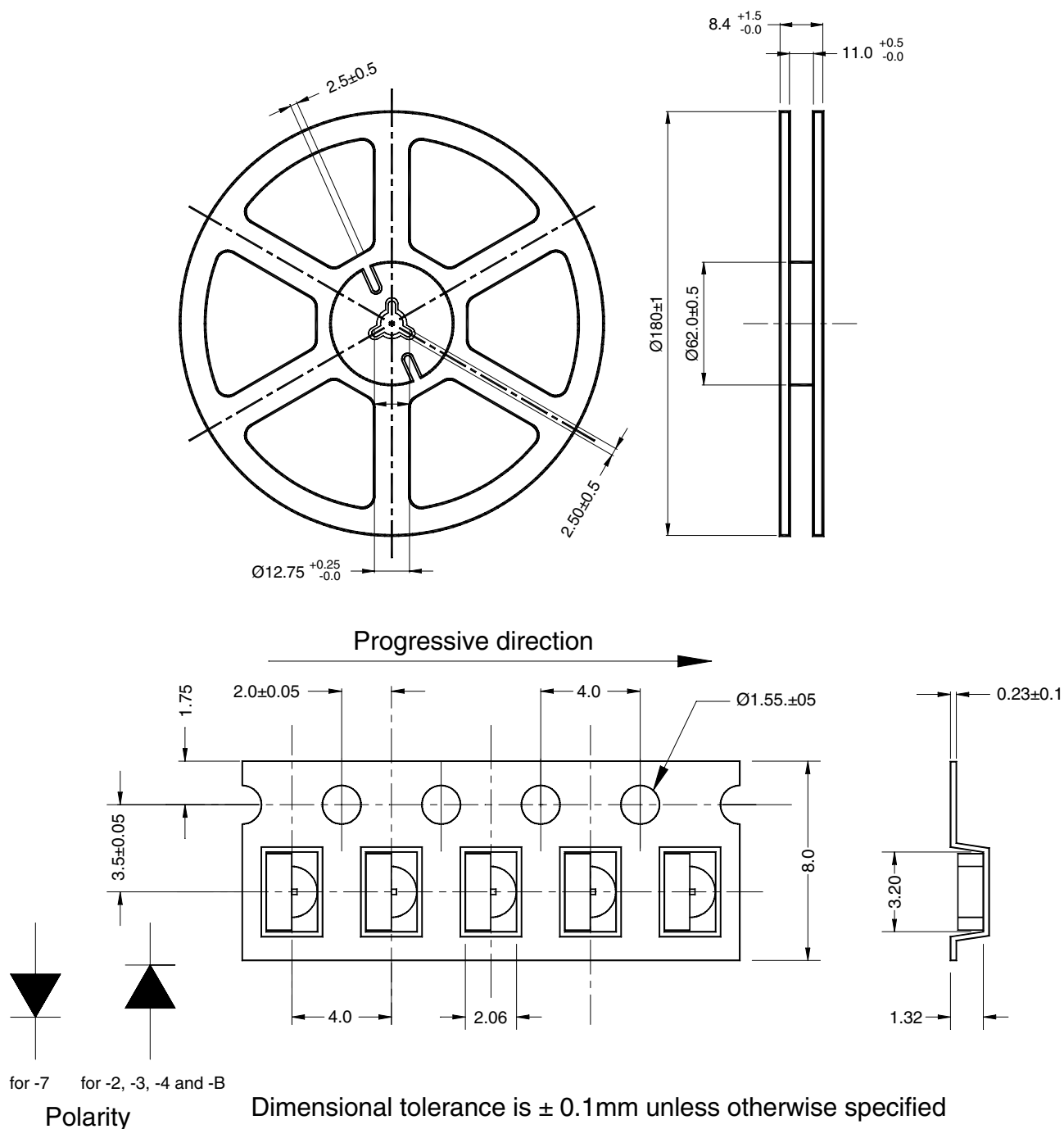
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QTL P610C-7 AlGaAs Red

QTLP610C-B Blue

TAPE AND REEL DIMENSIONS



Dimensional tolerance is $\pm 0.1\text{mm}$ unless otherwise specified

Angle: ± 0.5

Unit: mm

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