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# SURFACE MOUNT LED LAMP STANDARD BRIGHT 0805

**QTLP630C-2** HER

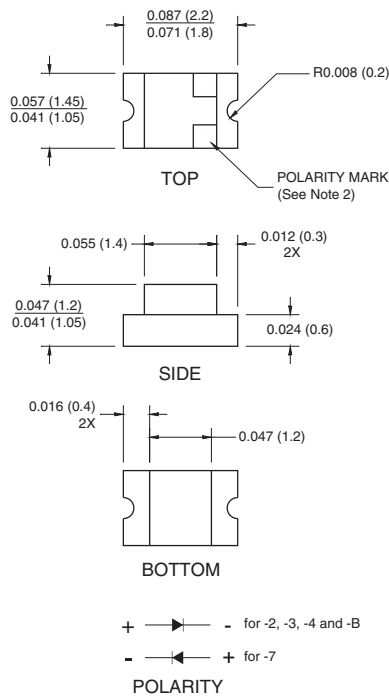
**QTLP630C-3** Yellow

**QTLP630C-4** Green

**QTLP630C-7** AlGaAs Red

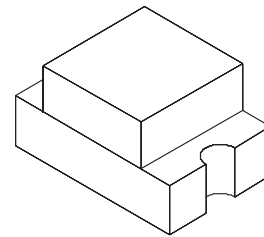
**QTLP630C-B** Blue

## PACKAGE DIMENSIONS



**NOTE:**

- Dimensions for all drawings are in inches (mm).
- Cathode for -2, -3, -4 and B. Anode for -7.



## APPLICATIONS

- Keypad backlighting
- Push-button backlighting
- LCD backlighting

## DESCRIPTION

These surface mount chip LEDs are designed to fit industry standard footprint. Low profile and wide viewing angle make these LEDs ideal choices for backlighting applications and panel illumination.

## FEATURES

- Small footprint - 2.0(L) X 1.25(W) X 1.1(H) mm
- Wide viewing angle of 140°
- 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	QTLP630C					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 +90					$^\circ\text{C}$
Lead Soldering Time	$T_{SOL}$	260 for 5 sec					$^\circ\text{C}$

ELECTRICAL / OPTICAL CHARACTERISTICS ( $T_A = 25^\circ\text{C}$ )							
Part Number	Symbol	QTLP630C					Condition
		-2	-3	-4	-7	-B	
Luminous Intensity (mcd)	$I_v$	5	5	6	10	15	IF = 20mA
Minimum Typical		10	10	10	20	20	
Forward Voltage (V)	$V_F$	2.8	2.8	2.8	2.4	4.5	IF = 20mA
Maximum Typical		2.0	2.0	2.1	1.9	3.8	
Wavelength (nm)	$I_P$ $I_D$	635	585	565	660	430	IF = 20mA
Peak Dominant		630	590	570	645	465	
Spectral Line Half Width (nm)	$D_l$	45	35	30	20	65	IF = 20mA
Viewing Angle ( $^\circ$ )	$2_{U1/2}$	140	140	140	140	140	IF = 20mA



# SURFACE MOUNT LED LAMP STANDARD BRIGHT 0805

**QTLP630C-2** HER

**QTLP630C-3** Yellow

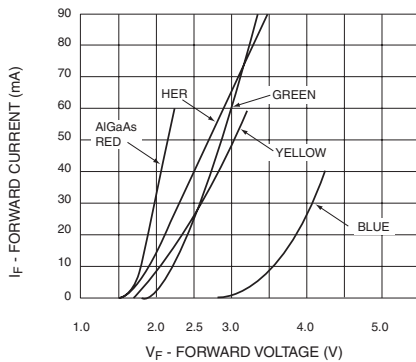
**QTLP630C-4** Green

**QTLP630C-7** AlGaAs Red

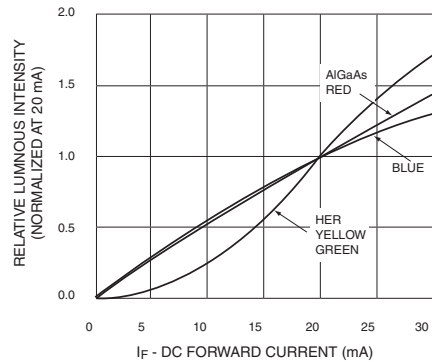
**QTLP630C-B** Blue

## TYPICAL PERFORMANCE CURVES

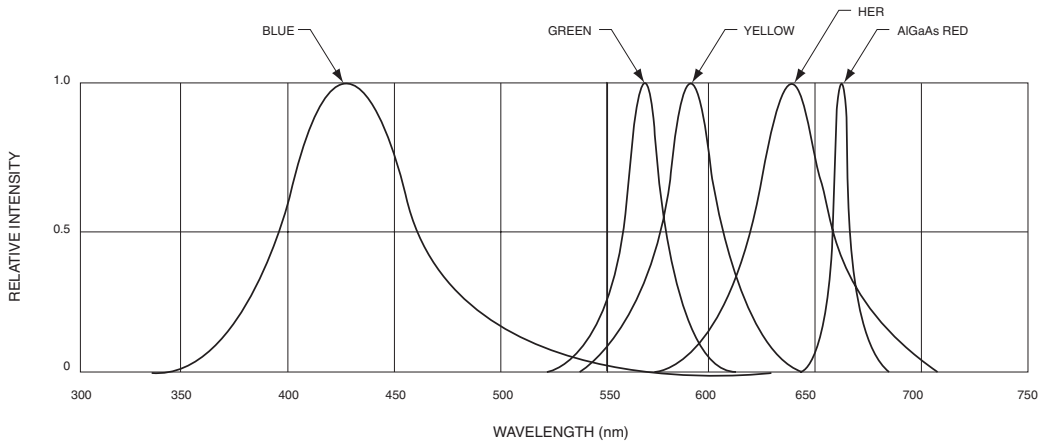
**Fig. 1 Forward Current vs. Forward Voltage**



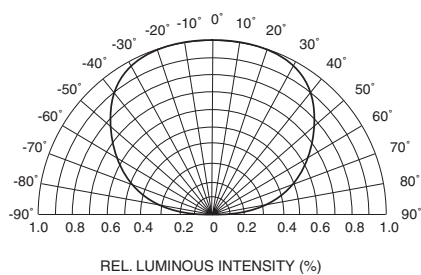
**Fig. 2 Relative Luminous Intensity vs. DC Forward Current**



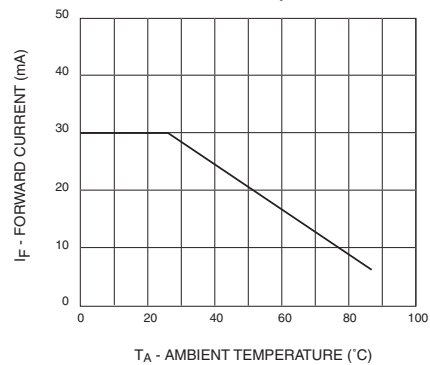
**Fig. 3 Relative Intensity vs. Peak Wavelength**



**Fig.4 Radiation Diagram**



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





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**QTLP630C-2** HER

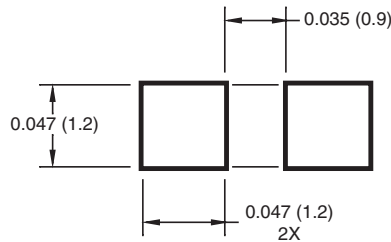
**QTLP630C-3** Yellow

**QTLP630C-4** Green

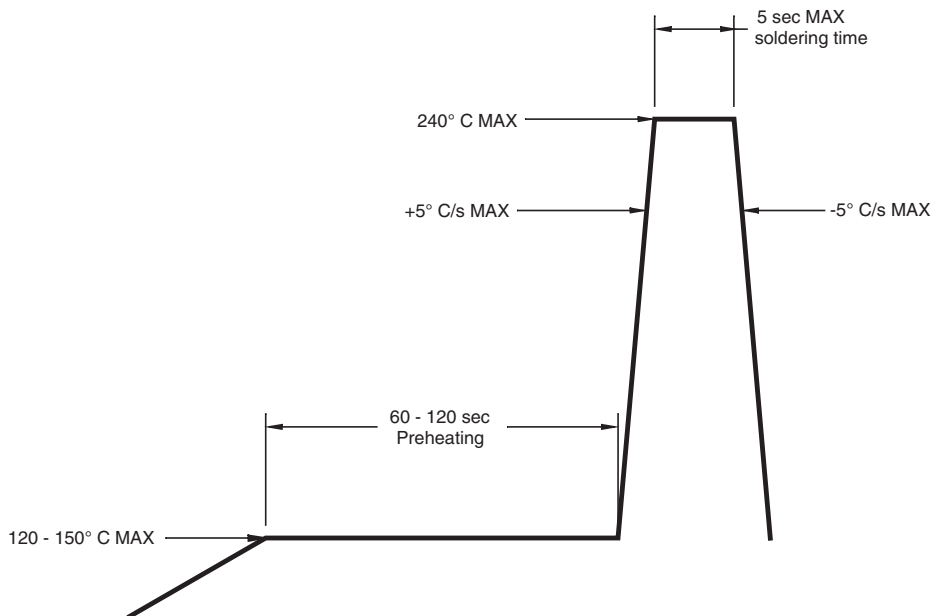
**QTLP630C-7** AlGaAs Red

**QTLP630C-B** Blue

## RECOMMENDED PRINTED CIRCUIT BOARD PATTERN



## RECOMMENDED IR REFLOW SOLDERING PROFILE





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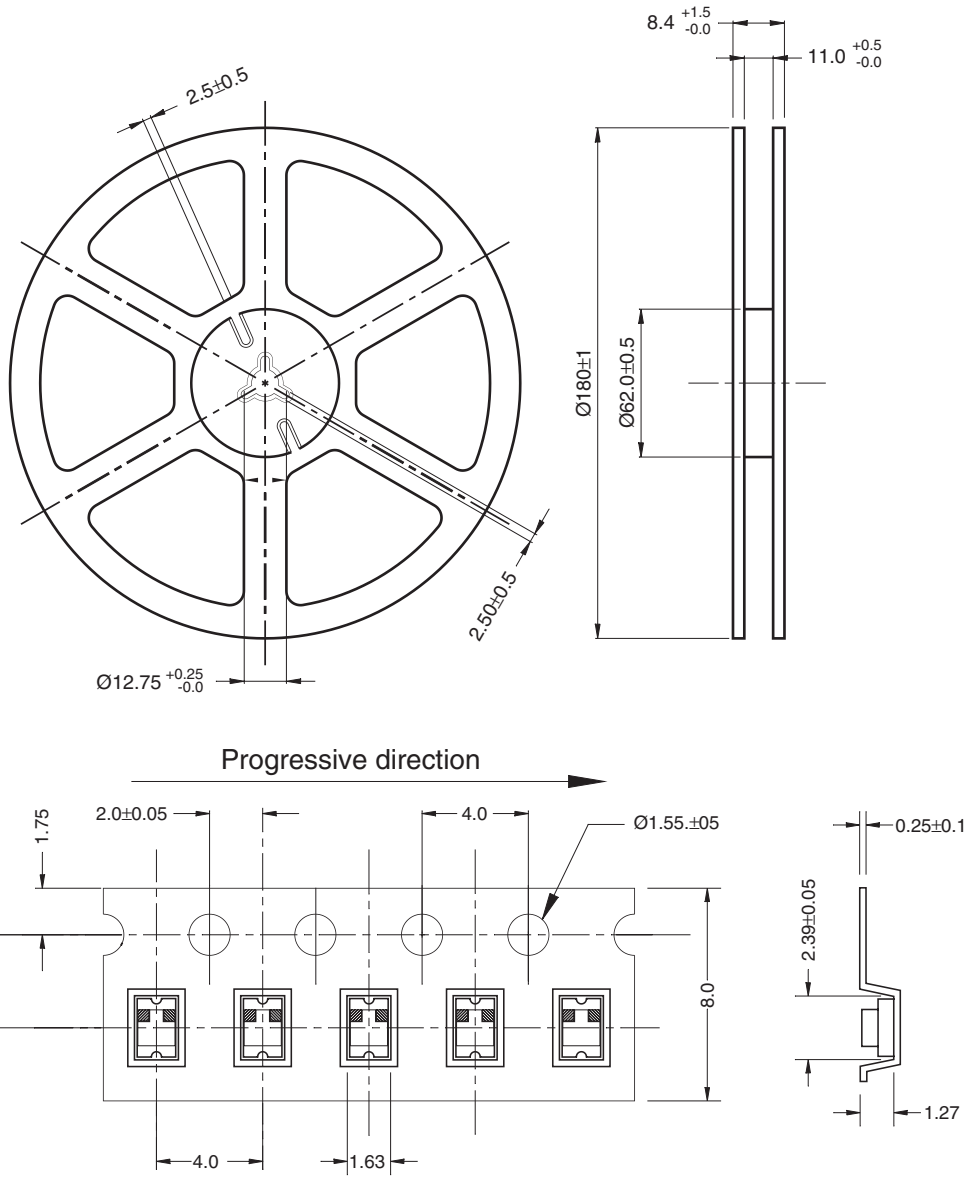
**QTLP630C-3 Yellow**

**QTLP630C-4 Green**

**QTLP630C-7 AlGaAs Red**

**QTLP630C-B Blue**

**TAPE AND REEL DIMENSIONS**



for -2, -3, -4 and -B  
 Polarity

Dimensional tolerance is ± 0.1mm unless otherwise specified

Angle: ± 0.5

Unit: mm



# SURFACE MOUNT LED LAMP STANDARD BRIGHT 0805

QTLP630C-2 HER

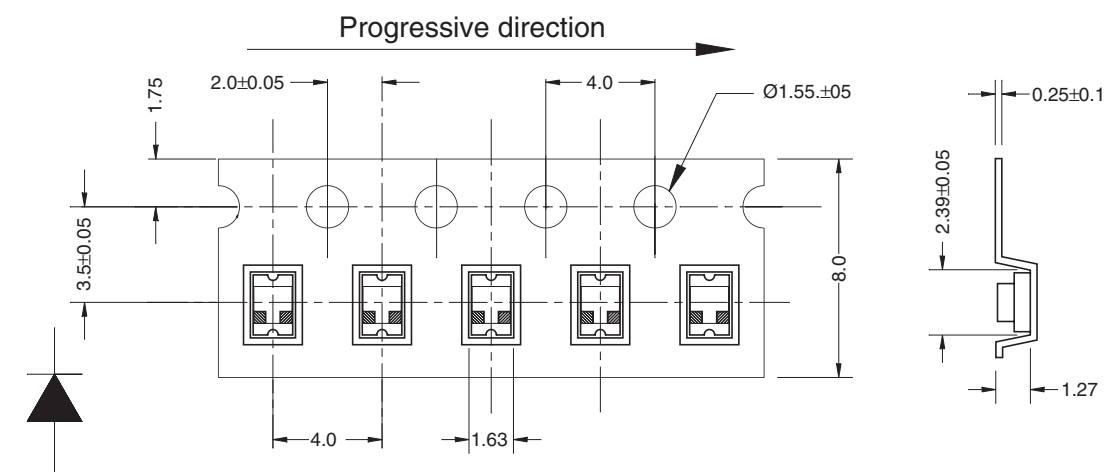
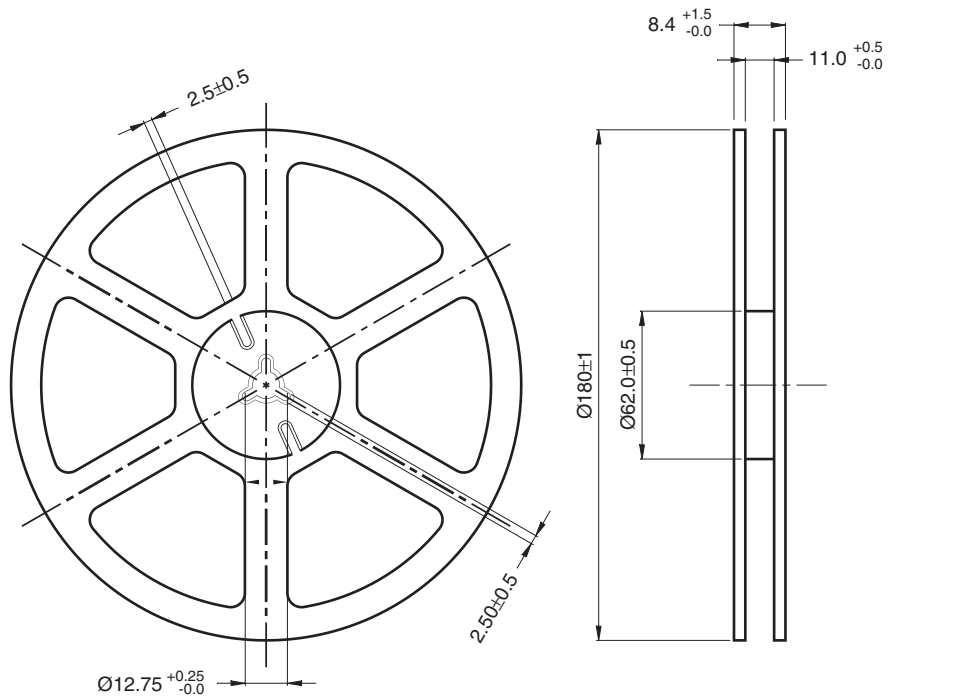
QTLP630C-3 Yellow

QTLP630C-4 Green

QTLP630C-7 AlGaAs Red

QTLP630C-B Blue

## TAPE AND REEL DIMENSIONS



for -7  
Polarity

Dimensional tolerance is ± 0.1mm unless otherwise specified

Angle: ± 0.5

Unit: mm



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## STANDARD BRIGHT 0805

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**QTLP630C-2** HER

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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.