

**QTLP630C-2 HER**

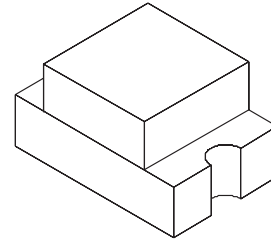
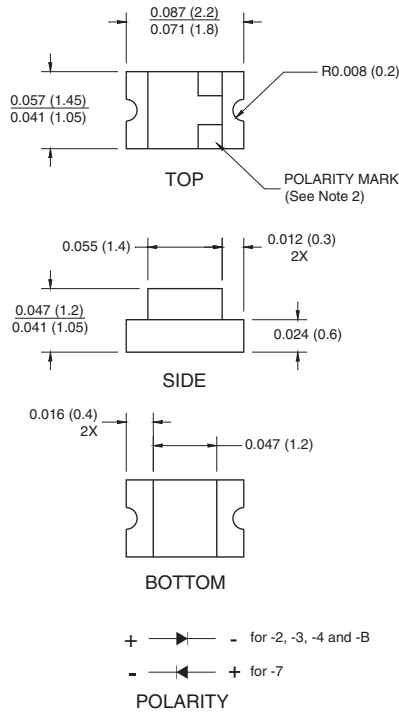
**QTLP630C-3 Yellow**

**QTLP630C-4 Green**

**QTLP630C-7 AlGaAs Red**

**QTLP630C-B Blue**

### PACKAGE DIMENSIONS



**NOTE:**

1. Dimensions for all drawings are in inches (mm).
2. 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

# SURFACE MOUNT LED LAMP

## STANDARD BRIGHT 0805

QTLP630C-2 HER

QTLP630C-3 Yellow

QTLP630C-4 Green

QTLP630C-7 AlGaAs Red

QTLP630C-B Blue

### 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 ( $^\circ$ )	$2U_{1/2}$	140	140	140	140	140	IF = 20mA

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### TYPICAL PERFORMANCE CURVES

Fig. 1 Forward Current vs. Forward Voltage

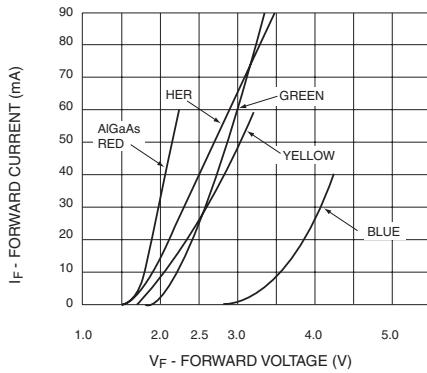


Fig. 2 Relative Luminous Intensity vs. DC Forward Current

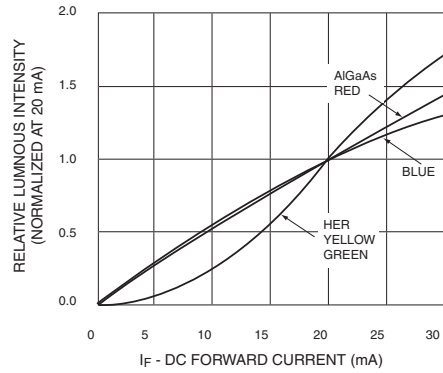


Fig. 3 Relative Intensity vs. Peak Wavelength

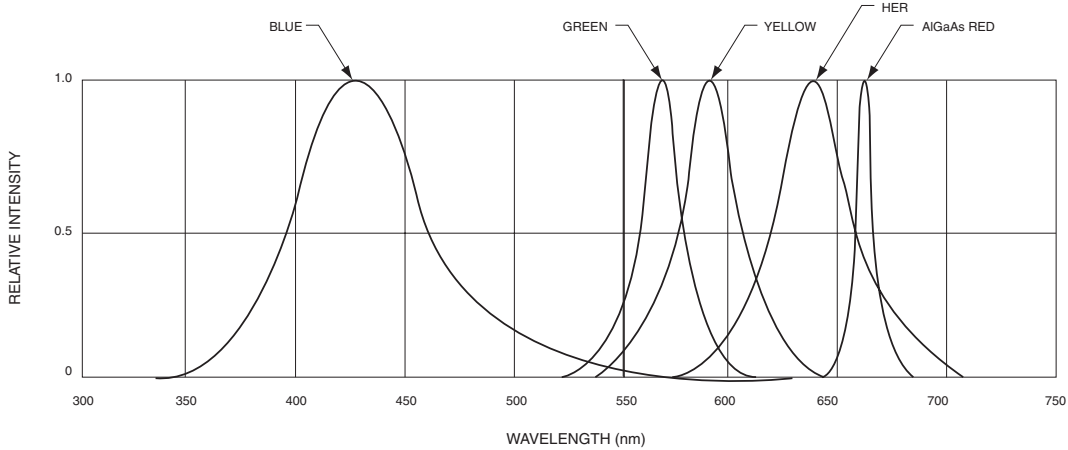


Fig. 4 Radiation Diagram

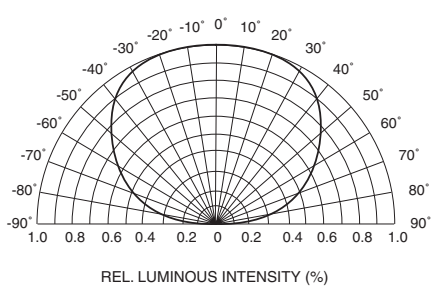
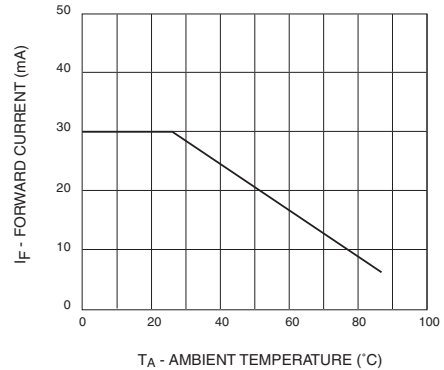


Fig. 5 Maximum Forward Current vs. Ambient Temperature



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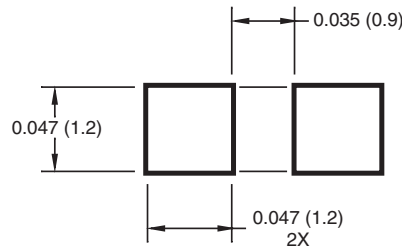
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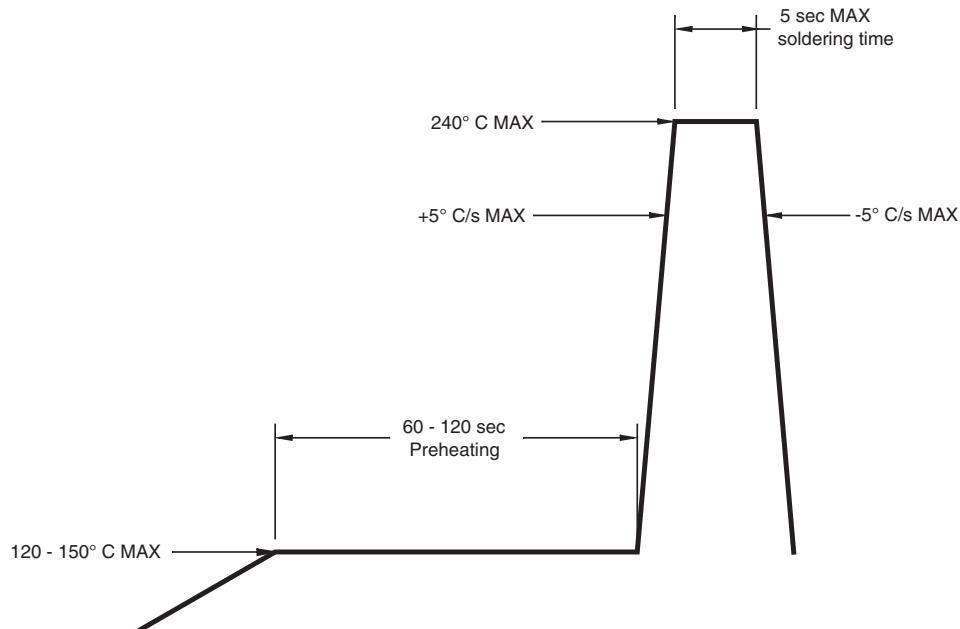
QTLP630C-7 AlGaAs Red

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### RECOMMENDED PRINTED CIRCUIT BOARD PATTERN



### RECOMMENDED IR REFLOW SOLDERING PROFILE



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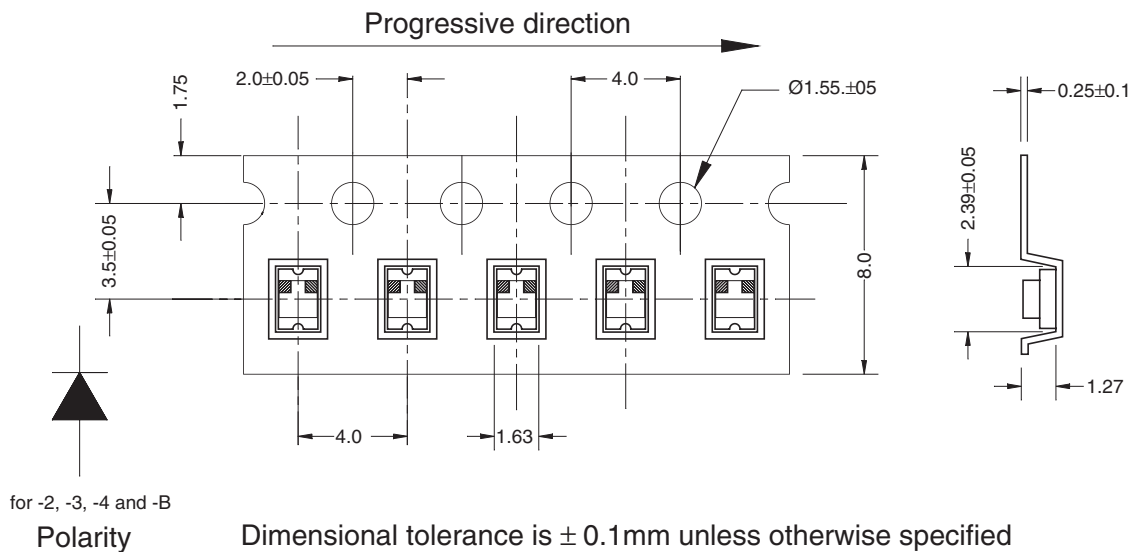
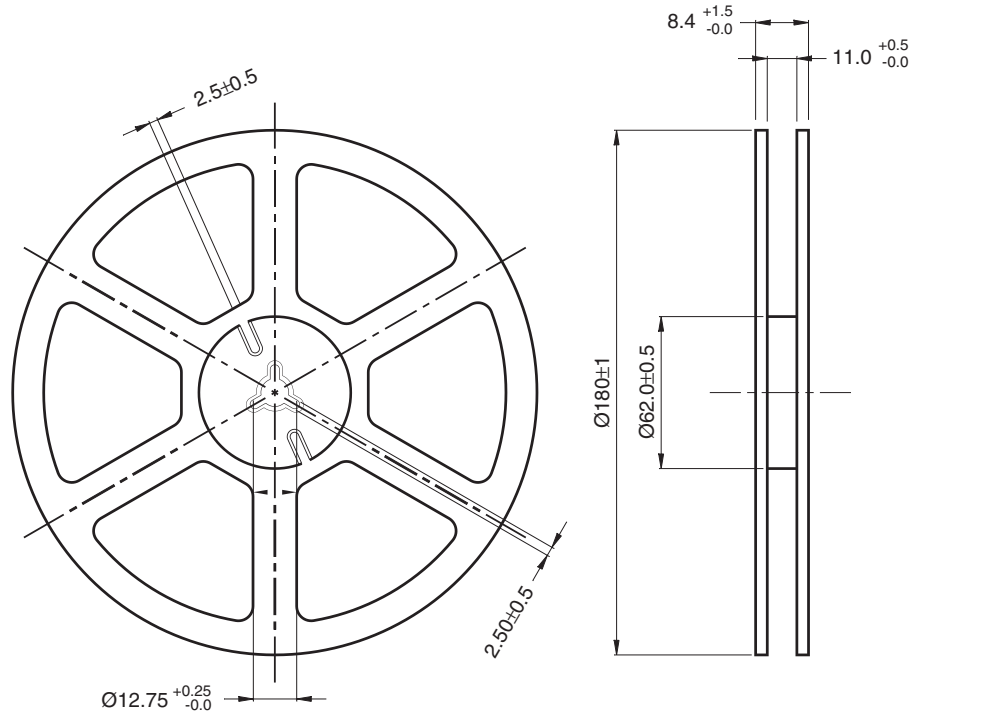
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### TAPE AND REEL DIMENSIONS



Dimensional tolerance is  $\pm 0.1$  mm unless otherwise specified

Angle:  $\pm 0.5$

Unit: mm

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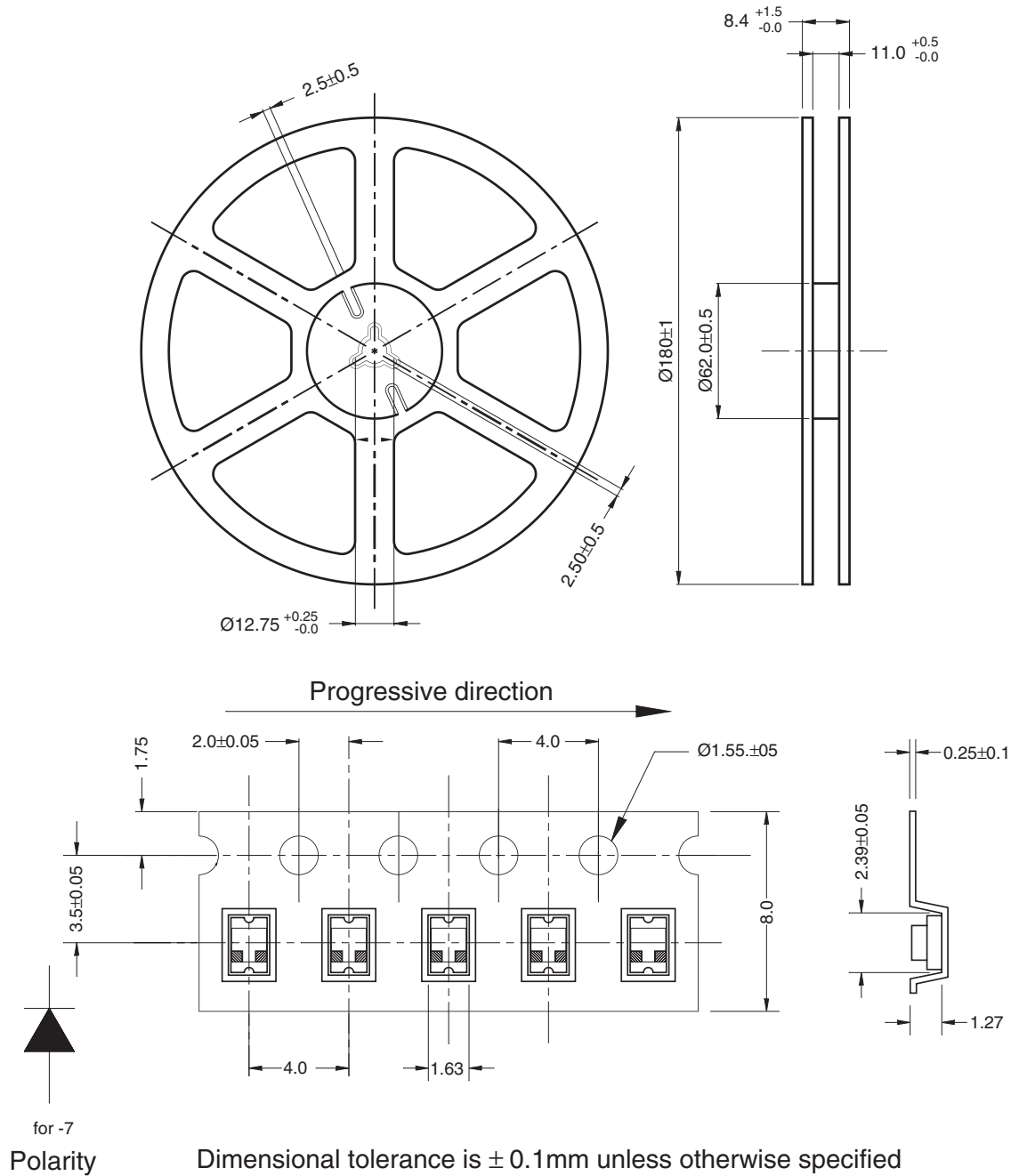
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