

QTLP630C-2 HER QTLP630C-4 Green QTLP630C-B Blue

QTLP630C-3 Yellow QTLP630C-7 AlGaAs Red

Surface Mount LED Lamp, Standard Bright 0805

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

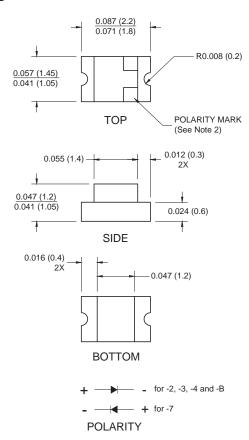
Applications

- Keypad backlighting
- Push-button backlighting
- LCD backlighting

Description

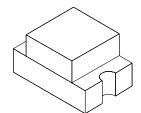
These surface mount chip LEDs are designed to fit industry standard footprint. Low profile and wide viewing angle make these LEDs ideal choices for backlighting applications and panel illumination.

Package Dimensions



NOTE:

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



Absolute Maximum Ratings ($T_A = 25$ °C unless otherwise specified)

		QTLP630C					
Parameter	Symbol	-2	-3	-4	-7	-B	Unit
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 $(T_A = 25^{\circ}C)$

		QTLP630C					
Parameter	Symbol	-2	-3	-4	-7	-B	Condition
Luminous Intensity (mcd)							
Minimum	I _V	5	5	6	10	15	I _F = 20mA
Typical		10	10	10	20	20	
Forward Voltage (V)							
Maximum	V _F	2.8	2.8	2.8	2.4	4.5	I _F = 20mA
Typical		2.0	2.0	2.1	1.9	3.8	
Wavelength (nm)							
Peak	λ _P	635	585	565	660	430	I _F = 20mA
Dominant	λ_{D}	630	590	570	645	465	
Spectral Line Half Width (nm)	Δ_{λ}	45	35	30	20	65	I _F = 20mA
Viewing Angle (°)	2Θ ¹ / ₂	140	140	140	140	140	I _F = 20mA

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Typical Performance Curves

Fig. 1 Forward Current vs. Forward Voltage

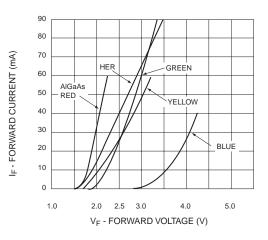


Fig. 2 Relative Luminous Intensity vs. DC Forward Current

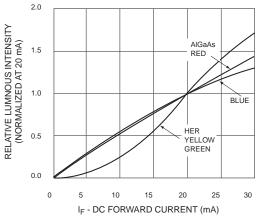


Fig. 3 Relative Intensity vs. Peak Wavelength

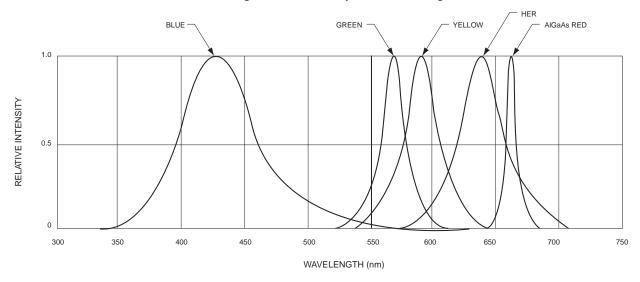


Fig.4 Radiation Diagram

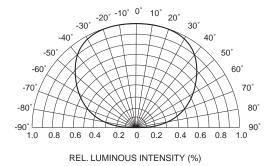
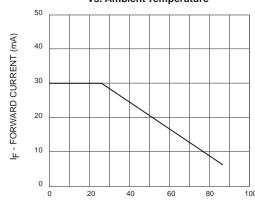
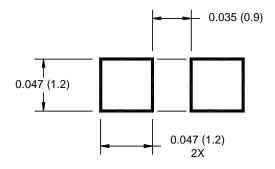


Fig.5 Maximum Forward Current vs. Ambient Temperature

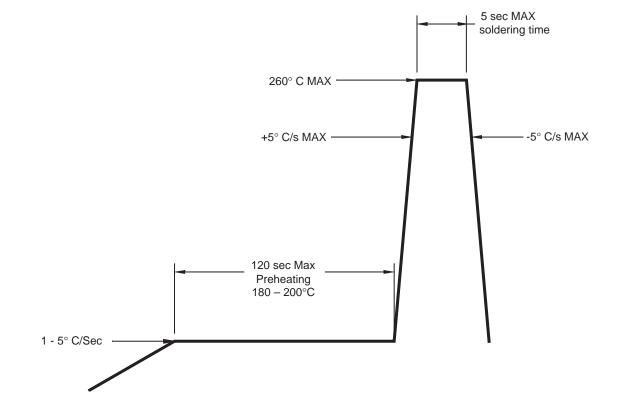


 $T_{\mbox{\scriptsize A}}$ - AMBIENT TEMPERATURE (°C)

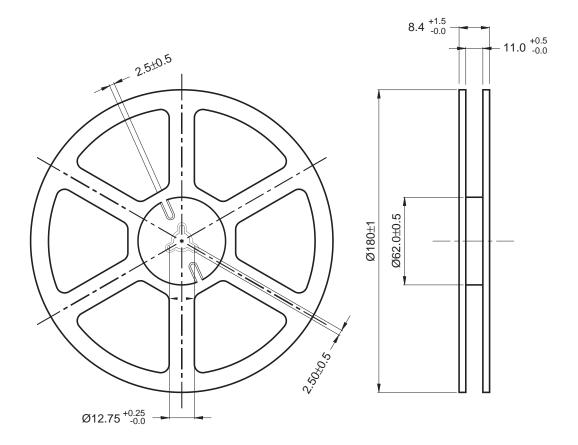
Recommended Printed Circuit Board Pattern

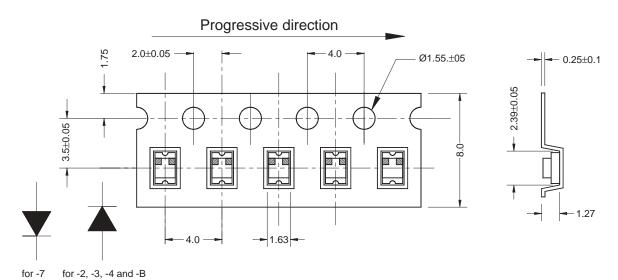


Recommended IR Reflow Soldering Profile



Tape and Reel Dimensions





Dimensional tolerance is \pm 0.1mm unless otherwise specified Angle: $\pm\,0.5$

Unit: mm

Polarity

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