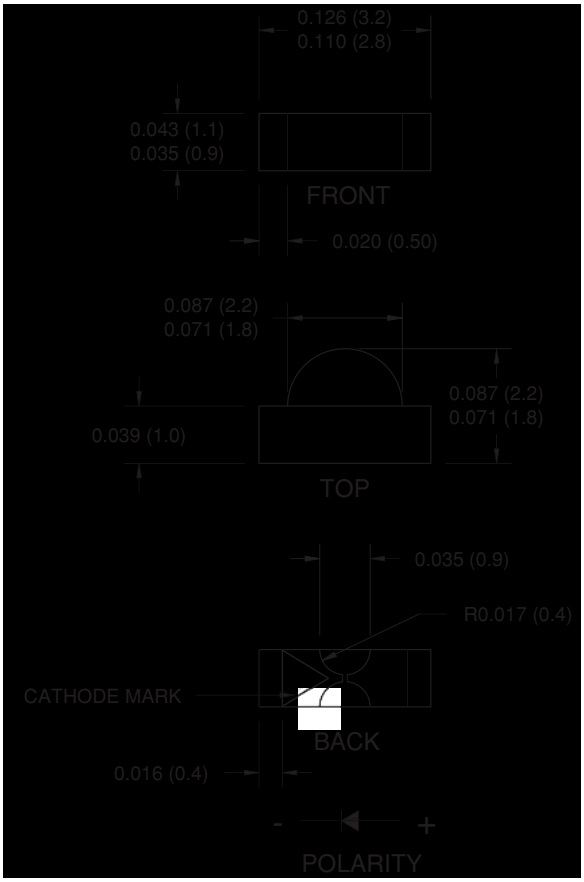
SURFACE MOUNT LED LAMP
RIGHT ANGLE

Low V_F Blue — QTLP610CEBTR

PACKAGE DIMENSIONS



NOTE:

Dimensions for all drawings are in inches (mm).
Tolerance is ±0.1mm unless otherwise noted.

APPLICATIONS

- LCD edge-lighting
- Edge card lighting

DESCRIPTION

This right angle surface mount chip LED emits light in the lateral direction. Small size and wide viewing angle make this LED an ideal choice for edge-lighting LCD displays. This device utilizes an InGaN/Sapphire blue LED.

FEATURES

- Small footprint - 3.0(L) X 2.0(W) X 1.0(H) mm
- Wide viewing angle of 120°
- Water clear optics
- 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°C unless otherwise specified)			
Parameter	**Symbol**	**Rating**	**Unit**
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
Continuous Forward Current	I_F	30	mA
Peak Forward Current (f = 1.0 KHz, Duty Factor = 1/10)	I_{FM}	100	mA
Reverse Voltage	V_R	5	V
Power Dissipation	P_D	80	mW

ELECTRICAL / OPTICAL CHARACTERISTICS (T_A =25°C)		
Part Number	**QTLP610CEBTR**	**Condition**
Luminous Intensity (mcd)		
Bin I1	8 - 16	I_F = 5 mA
Bin I2	13 - 26	
Forward Voltage (V)		
Bin V1	2.75 - 2.95	I_F = 5 mA
Bin V2	2.95 - 3.15	
Dominant Wavelength (nm)		
Bin W2	470 - 475	I_F = 5 mA
Bin W3	475 - 480	
Spectral Line Half Width (nm)	35	I_F = 5 mA
Viewing Angle (°)	120	I_F = 5 mA
Reverse Current (µA)	50 max	V_R = 5V

Tolerance: Luminous Intensity = ± 11%
Forward Voltage = ±0.1V
Wavelength = ±1nm

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TYPICAL PERFORMANCE CURVES

Fig. 1 Forward Current vs. Forward Voltage

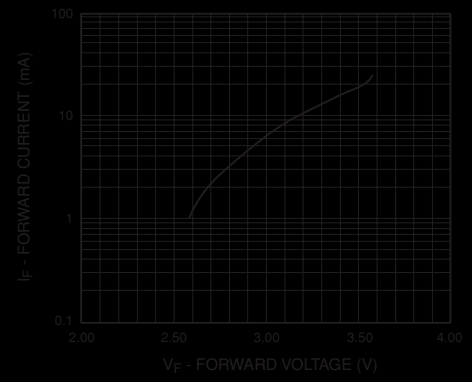


Fig. 2 Relative Luminous Intensity vs. DC Forward Current

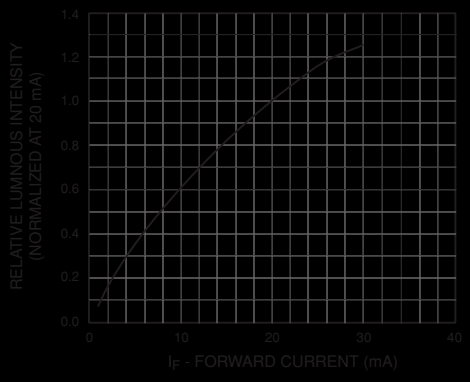


Fig. 3 Relative Intensity vs. Peak Wavelength

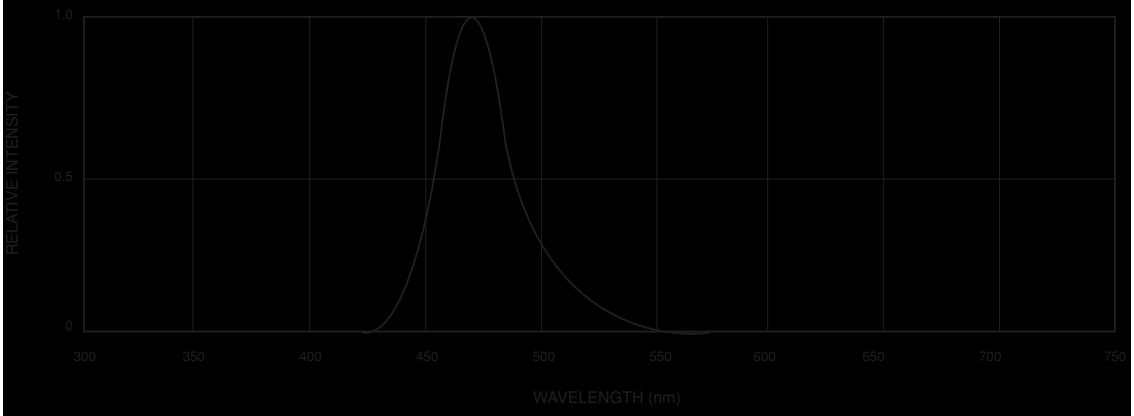


Fig.4 Radiation Diagram

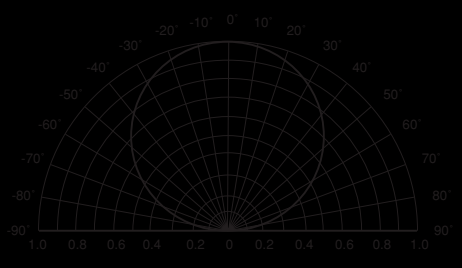
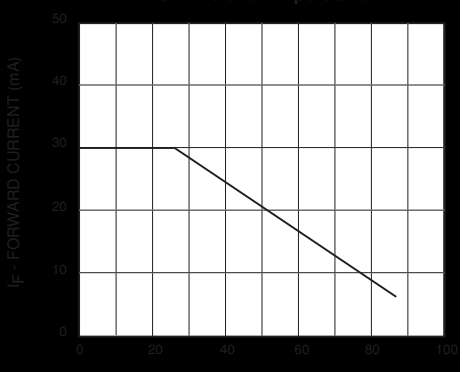


Fig.5 Maximum Forward Current vs. Ambient Temperature



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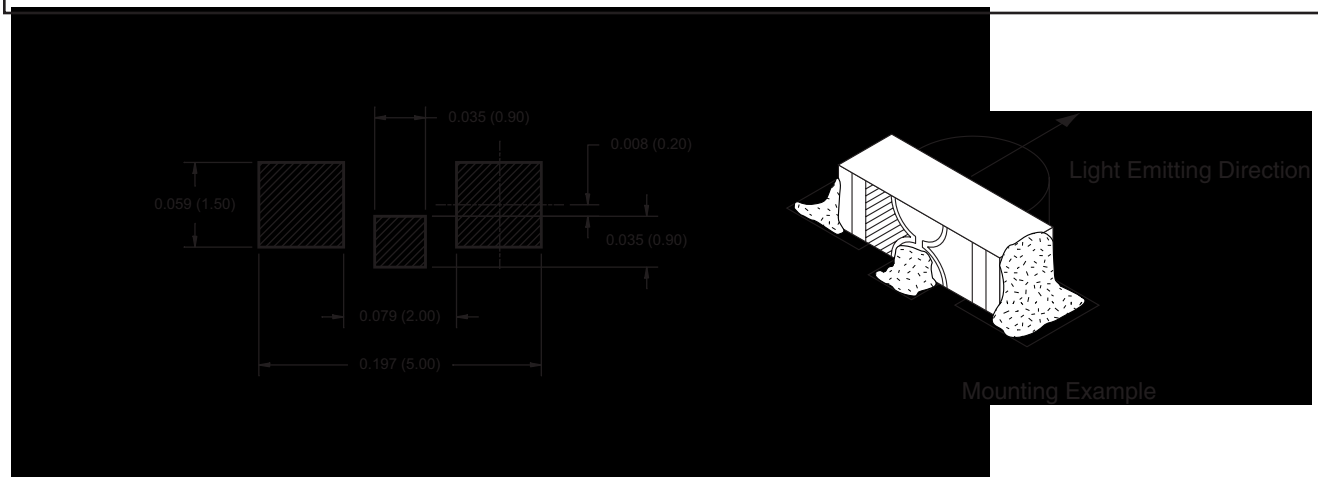
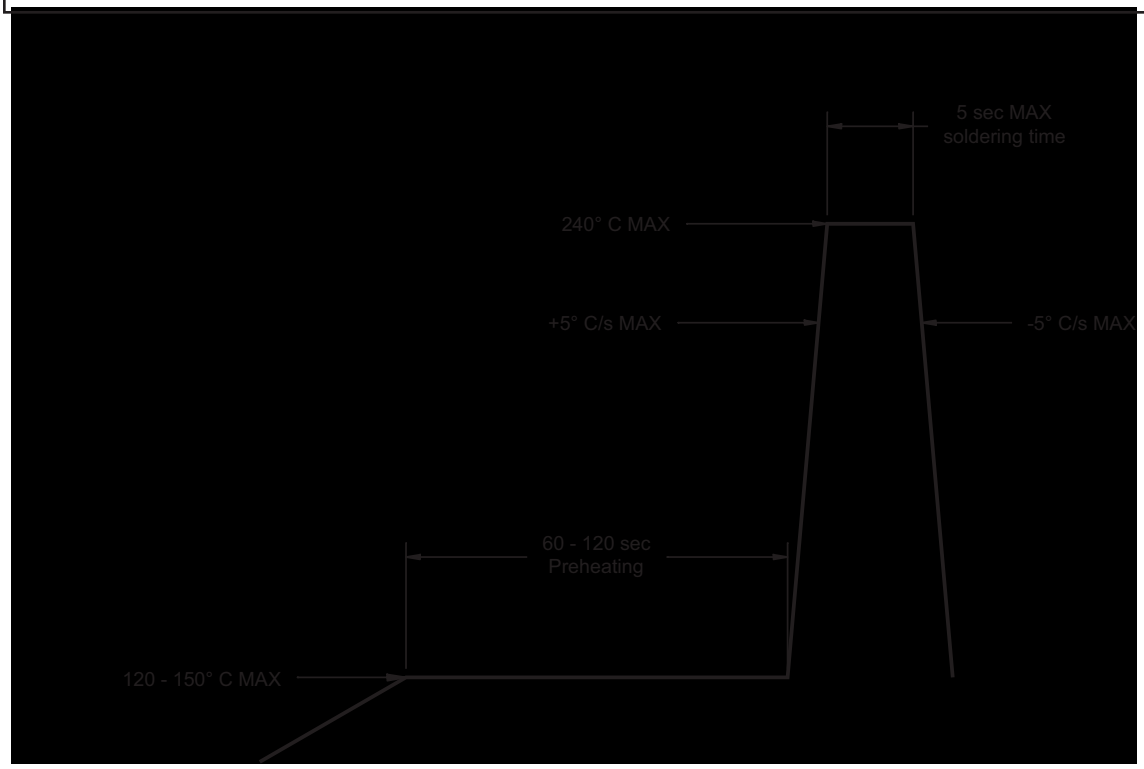
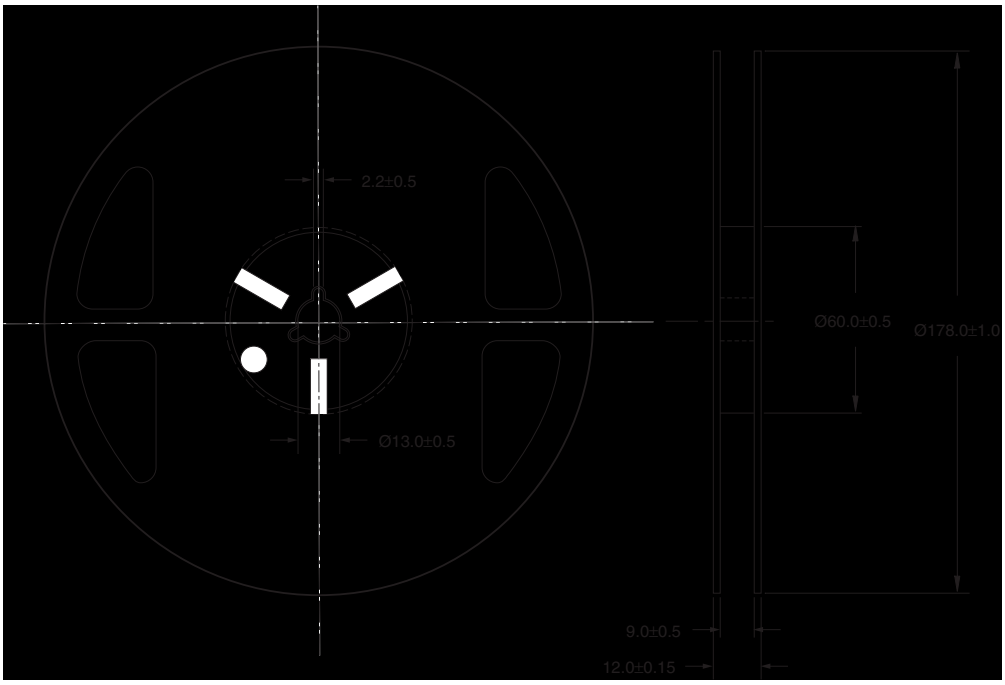
RECOMMENDED PRINTED CIRCUIT BOARD PATTERN

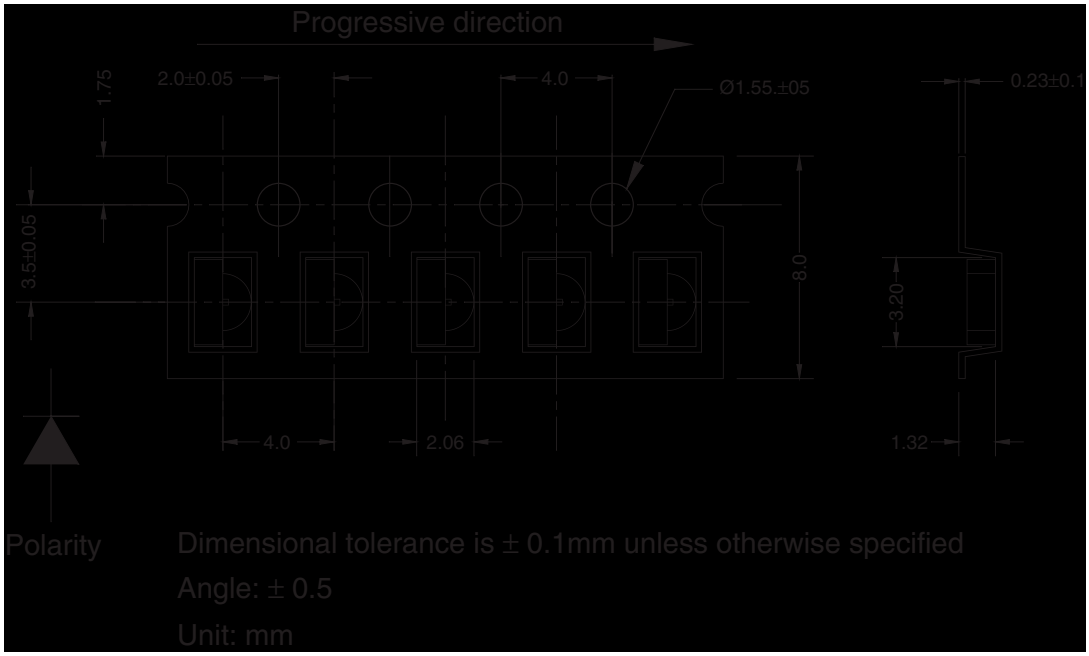


RECOMMENDED IR REFLOW SOLDERING PROFILE



TAPE AND REEL DIMENSIONS





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