



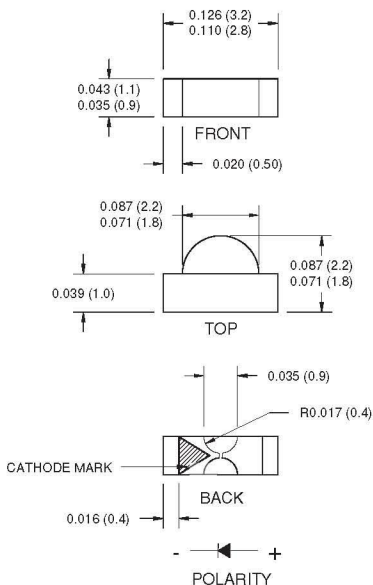
SURFACE MOUNT LED LAMP

RIGHT ANGLE

Low V_F Blue

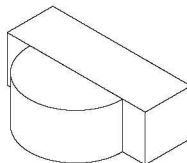
QTLP610CEBTR

PACKAGE DIMENSIONS



NOTE:

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

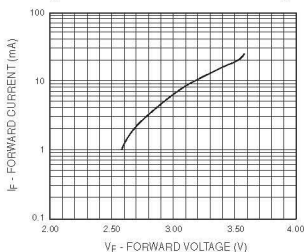


Fig. 2 Relative Luminous Intensity vs. DC Forward Current

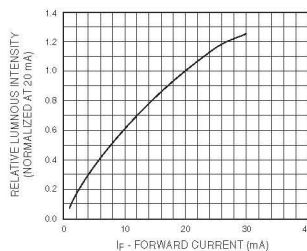


Fig. 3 Relative Intensity vs. Peak Wavelength

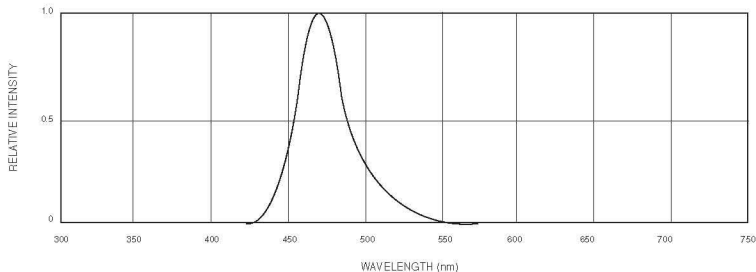


Fig.4 Radiation Diagram

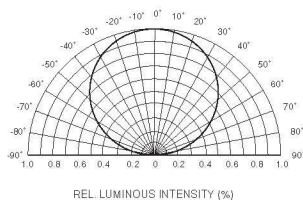
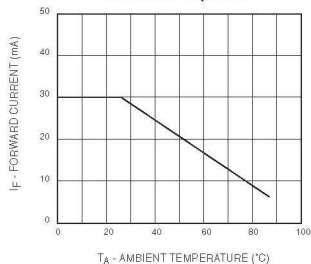


Fig.5 Maximum Forward Current vs. Ambient Temperature



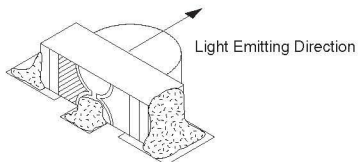
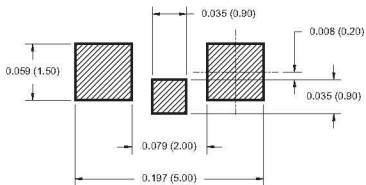


SURFACE MOUNT LED LAMP RIGHT ANGLE

Low V_F Blue

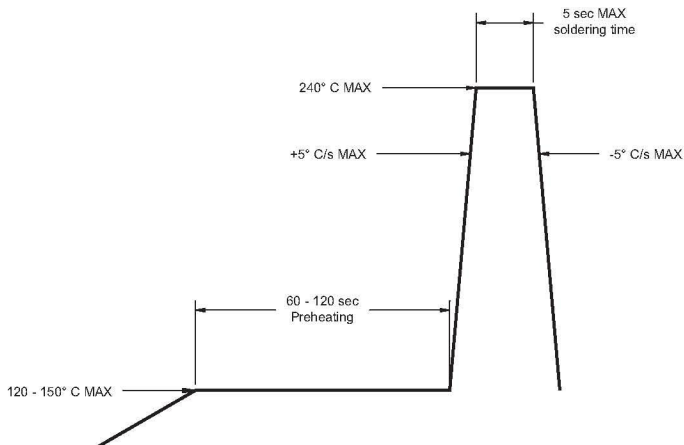
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RECOMMENDED PRINTED CIRCUIT BOARD PATTERN



Mounting Example

RECOMMENDED IR REFLOW SOLDERING PROFILE





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