FAIRCHILD SEMICONDUCTOR®

SURFACE MOUNT LED LAMP
RIGHT ANGLE

Low V_F Blue — QTLP610CEBTR

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

TYPICAL PERFORMANCE CURVES

Fig. 1 Forward Current vs. Forward Voltage

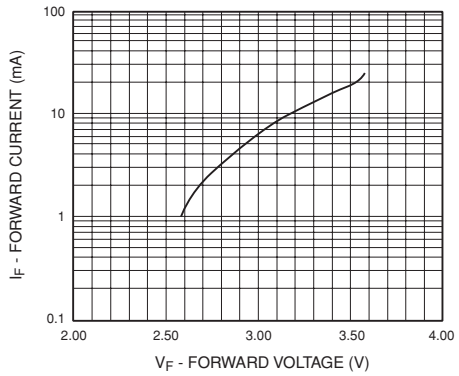


Fig. 2 Relative Luminous Intensity vs. DC Forward Current

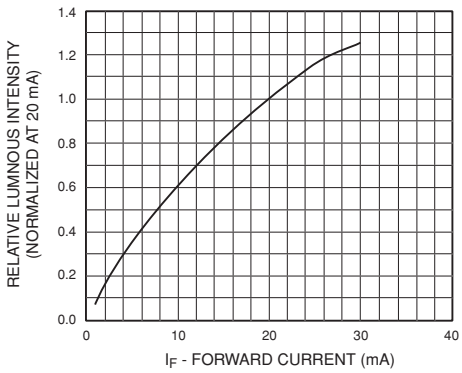


Fig. 3 Relative Intensity vs. Peak Wavelength

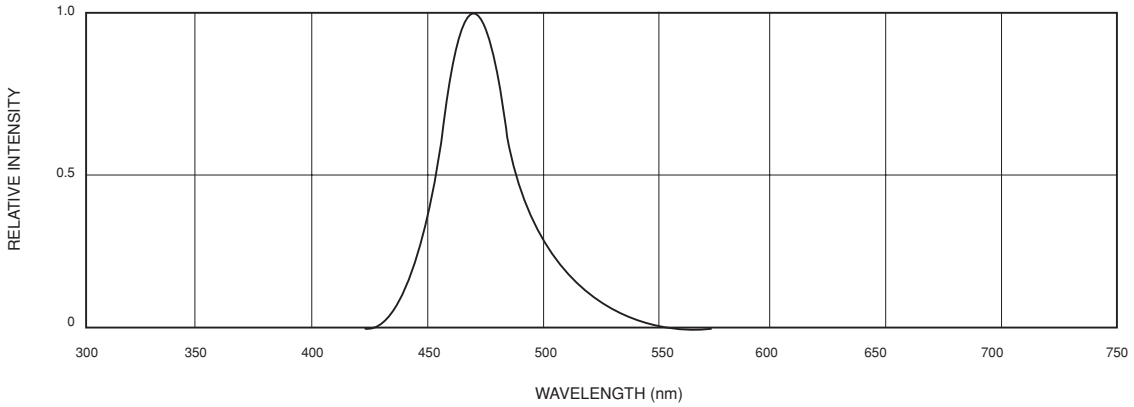


Fig.4 Radiation Diagram

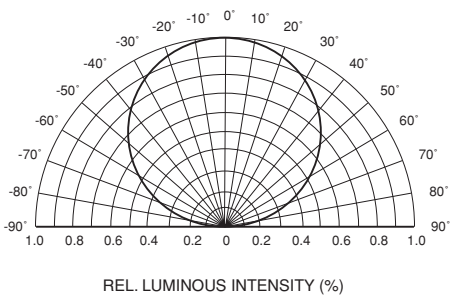
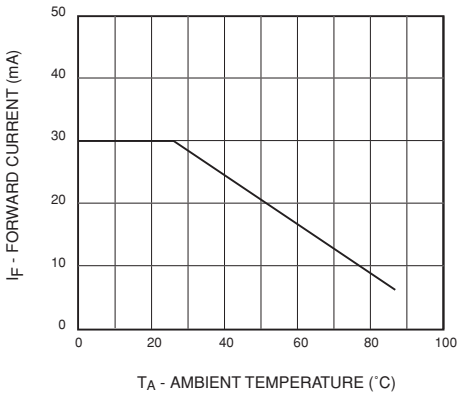
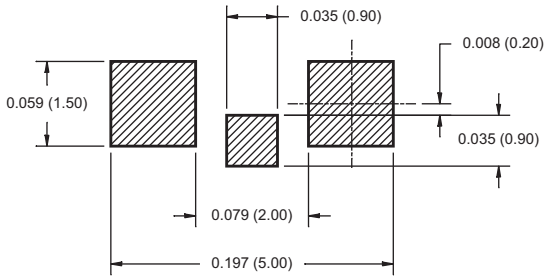
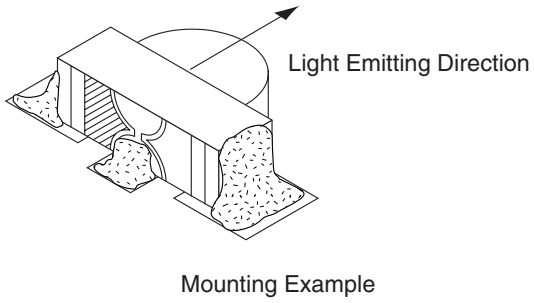


Fig.5 Maximum Forward Current vs. Ambient Temperature



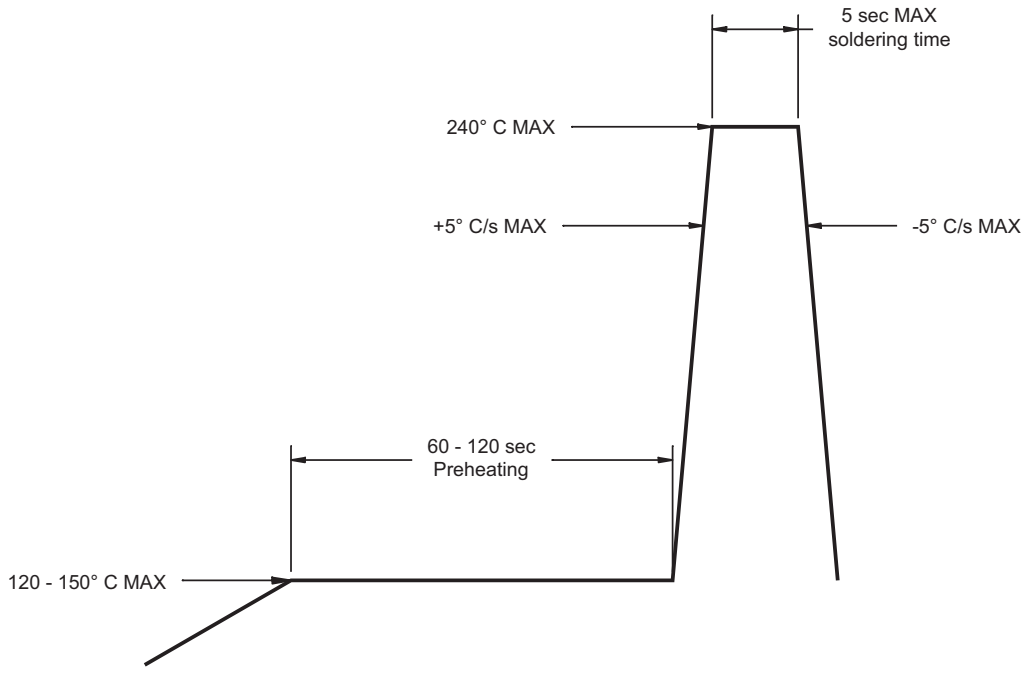
RECOMMENDED PRINTED CIRCUIT BOARD PATTERN



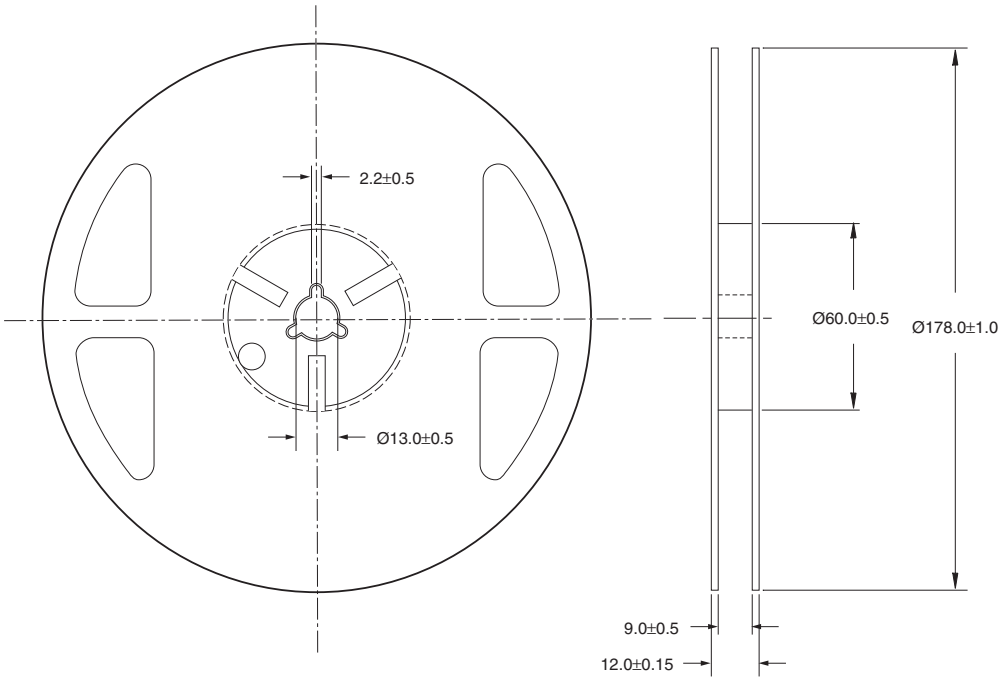


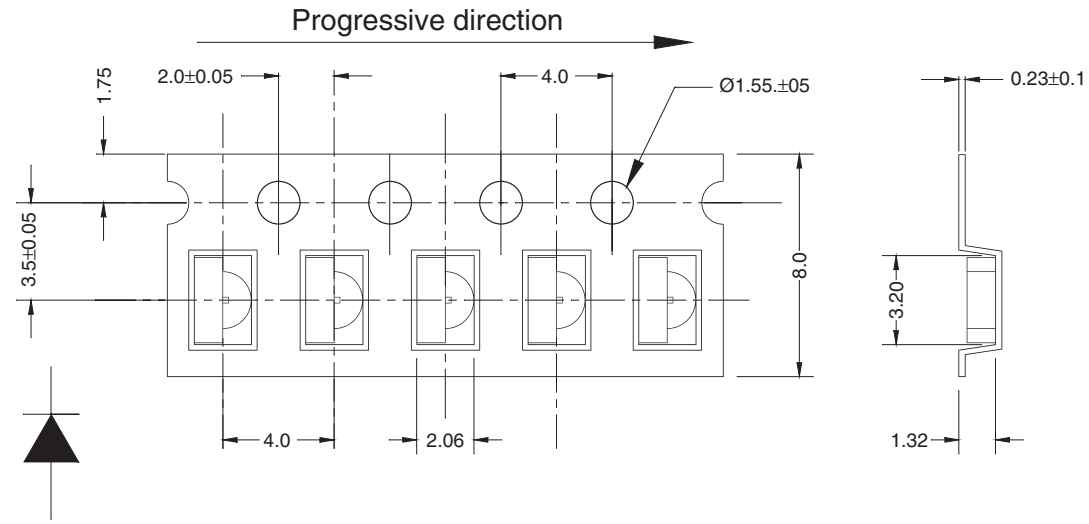
Mounting Example

RECOMMENDED IR REFLOW SOLDERING PROFILE



TAPE AND REEL DIMENSIONS





Dimensional tolerance is ± 0.1mm unless otherwise specified

Angle: ± 0.5

Unit: mm

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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.