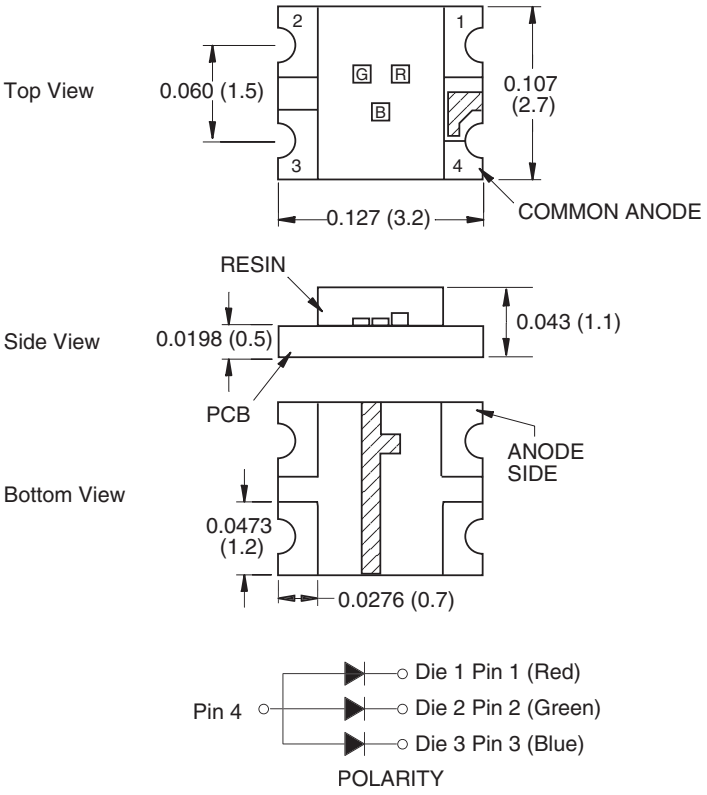
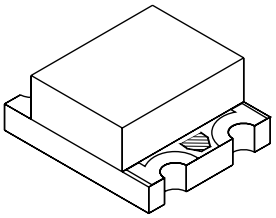
SURFACE MOUNT LED LAMP
FULL COLOR 1210

QTLP650D-RGB Red/Green/Blue

PACKAGE DIMENSIONS



NOTE:
Dimensions for all drawings are in inches (mm).



APPLICATIONS

- Keypad backlighting
- Push-button backlighting
- LCD backlighting

DESCRIPTION

This full-color surface mount chip LED is designed to fit industry standard footprint. Small size, low profile and wide viewing angle make this LED ideal for backlighting applications and panel illumination.

FEATURES

- Miniature footprint - 3.2(L) X 2.7(W) X 1.1(H) mm
- AlInGaP and InGaN technology
- Wide viewing angle of 140°
- Diffused optics
- Moisture-proof packaging
- 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**	**R**	**G**	**B**	**Units**
Continuous Forward Current	I_F	30	20	20	mA
Peak Forward Current (f = 1.0 KHz, Duty Factor = 1/10)	I_{FM}	100	80	80	mA
Reverse Voltage (I_R = 100 µA)	V_R	5			V
Power Dissipation	P_D	72	78	78	mW
Operating Temperature	T_{OPR}	-30 to +80			°C
Storage Temperature	T_{STG}	-40 to +85			°C
Lead Soldering Time	T_{SOL}	260 for 5 sec			°C

ELECTRICAL / OPTICAL CHARACTERISTICS (T_A =25°C)						
Parameter		**Symbol**	**QTLP650D**			**Condition**
			R	**G**	**B**	
Luminous Intensity (mcd)	min:	I_V	25	63	25	I_F = 20mA
	typ:		60	130	40	
Forward Voltage (V)	typ:	V_F	1.9	3.3	3.3	I_F = 20mA
	max:		2.4	3.9	3.9	
Wavelength (nm)	Peak:	I_P	630	520	468	I_F = 20mA
	Dominance:	I_D	624	525	470	
Typical Viewing Angle (°)		2U1/2	140			I_F = 20mA

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TYPICAL PERFORMANCE CURVES

Fig. 1A Forward Current vs. Forward Voltage

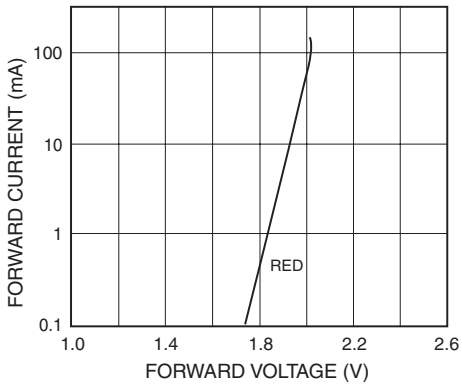


Fig. 1B Forward Current vs. Forward Voltage

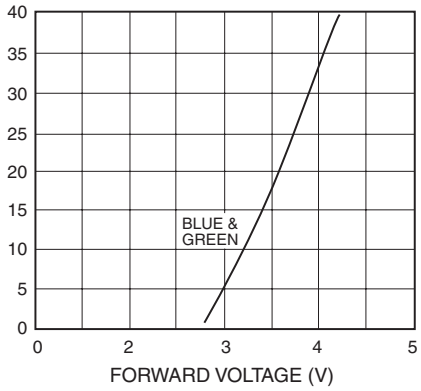


Fig. 2 Relative Intensity vs. Forward Current

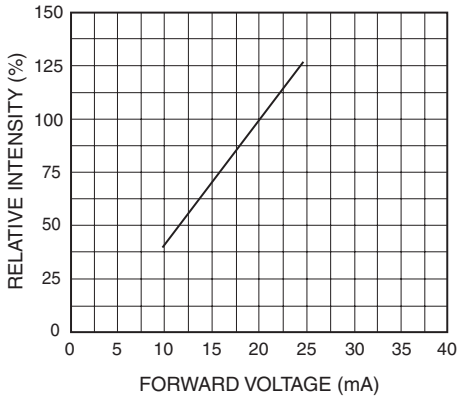


Fig. 3 Forward Current vs. Ambient Temperature

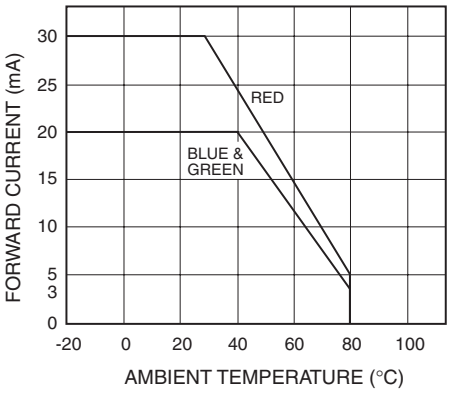
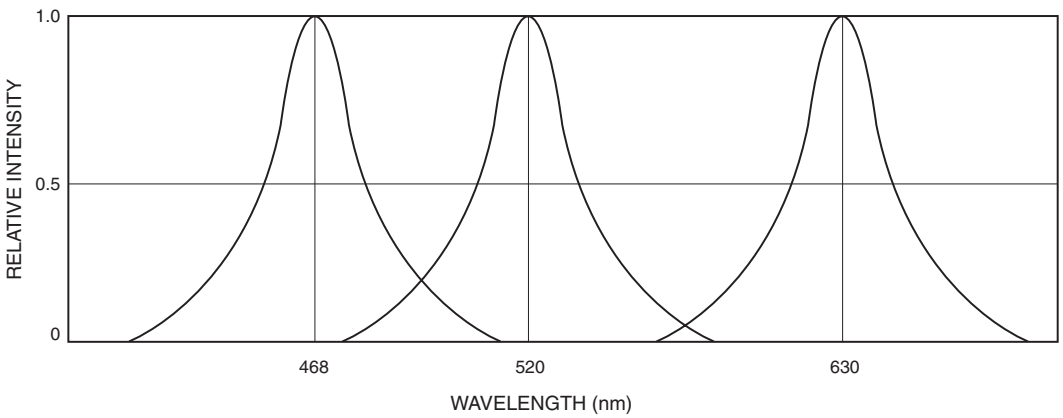


Fig. 4 Relative Intensity vs. Peak Wavelength



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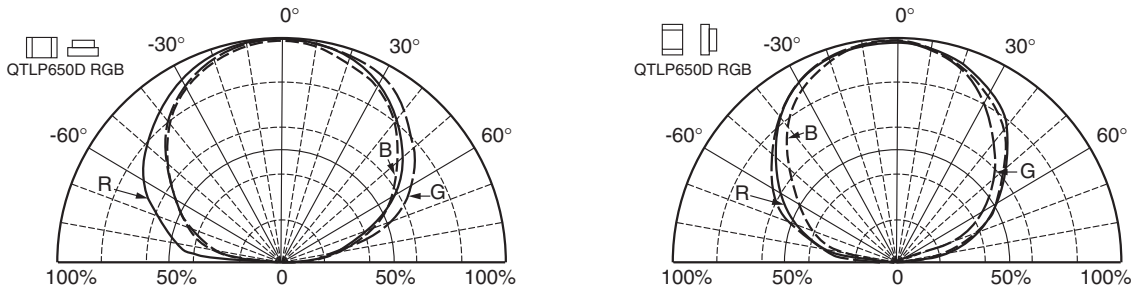
TYPICAL PERFORMANCE CURVES

Fig.5 Radiation Diagrams



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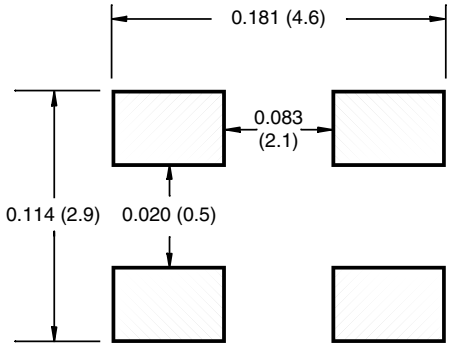
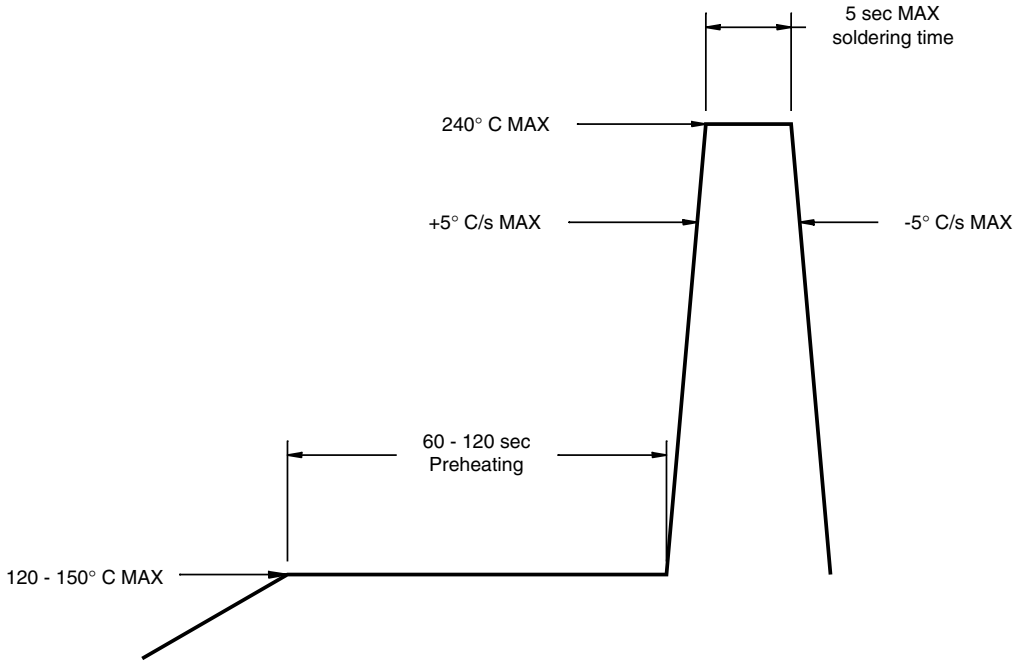
RECOMMENDED PRINTED CIRCUIT BOARD PATTERN



RECOMMENDED IR REFLOW SOLDERING PROFILE



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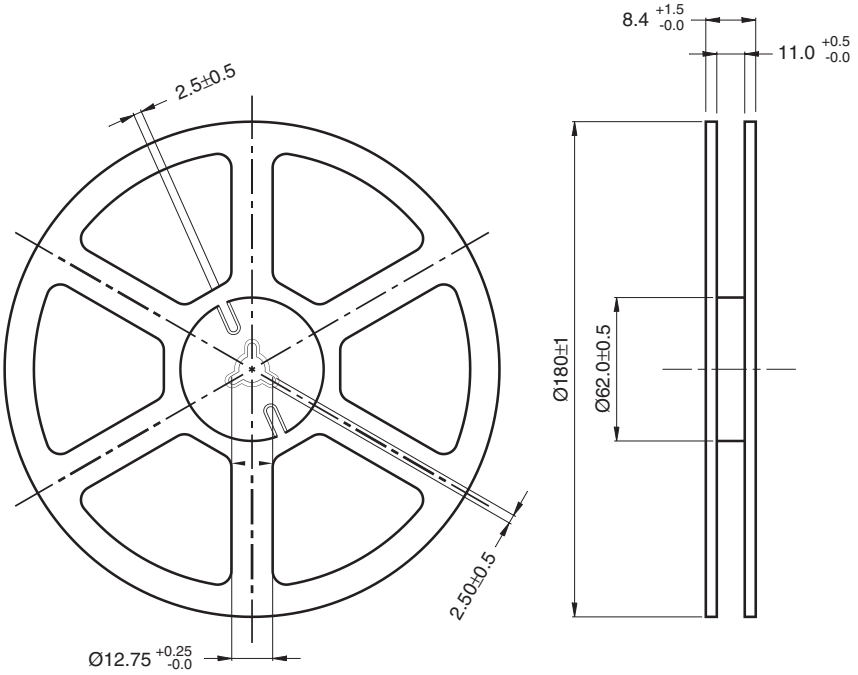
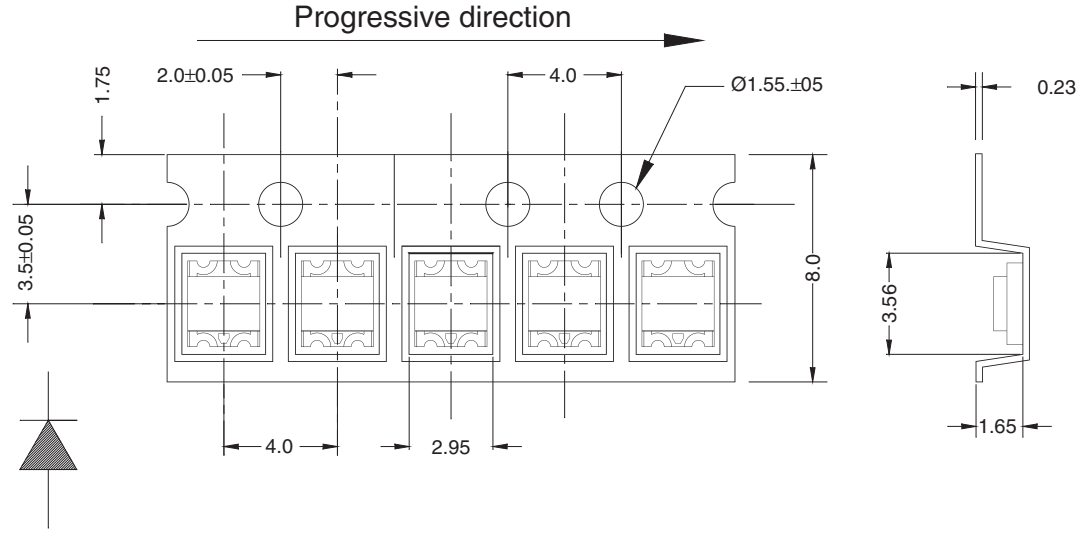
TAPE AND REEL DIMENSIONS





Polarity

Dimensional tolerance is ± 0.1mm unless otherwise specified

Angle: ± 0.5

Unit: mm

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