

NOTE:

Dimensions are in inches (mm).

### SURFACE MOUNT LED LAMP Bi-Color Right Angle

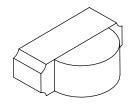
### **PACKAGE DIMENSIONS →**0.118 (3.00) → 0.039 (1.00)-TOP Ø0.020 (0.50) - 0.079 (2.00) 0.079 (2.00) 0.039 (1.00) SIDE R0.017 (0.44) 0.010 (0.25) 0.035 (0.88) CATHODE MARK -**BOTTOM** Red C1 (-) -→ A (+) C2 (-) o-Green

AllnGaP Red / AllnGaP Green

QTLP610C-RAG

#### **FEATURES**

- Ultra-miniature
- Water clear optics
- Moisture-proof packaging
- Available in 0.315" (8mm) width tape on 7" (178mm) diameter
- Compatible with IR and vapor phase reflow solder processes



### **DESCRIPTION**

This bi-color surface mount lamp is designed to fit industry standard profile and footprint. The low profile, right angle mounting is ideal for side and multicolor illuminations.

ABSOLUTE MAXIMUM RATINGS (T <sub>A</sub> = 25°C unless otherwise specified)		
Parameter	QTLP610C-RAG AllnGaP Red / AllnGaP Green	Units
Continuous Forward Current - I <sub>F</sub>	30/30	mA
Peak Forward Current - I <sub>F</sub>	160/160	mA
(f = 1.0 KHz, Duty Factor = 1/10)		
Reverse Voltage - V <sub>R</sub> (I <sub>R</sub> = 10 μA)	5/5	V
Power Dissipation - P <sub>D</sub>	60/60	mW
Operating Temperature - T <sub>OPR</sub>	-40 to +85	°C
Storage Temperature - T <sub>STG</sub>	-40 to +100	°C
Lead Soldering Time - T <sub>SOL</sub>	260 for 5 sec	°C



ELECTRICAL / OPTICAL CHARACTERISTICS (TA =25°C)		
Part Number	QTLP610C-RAG AllnGaP Red / AllnGaP Green	Condition
Luminous Intensity (mcd)		I <sub>F</sub> = 20 mA
Minimum	20/15	
Typical	45/25	
Forward Voltage (V)		I <sub>F</sub> = 20 mA
Maximum	2.4/2.4	
Typical	2.0/2.0	
Wavelength (nm)		I <sub>F</sub> = 20 mA
Peak	630/575	
Dominant	624/573	
Spectral Line Half Width (nm)	20/20	I <sub>F</sub> = 20 mA
Viewing Angle (°)	120/120	I <sub>F</sub> = 20 mA

### **TYPICAL PERFORMANCE CURVES**

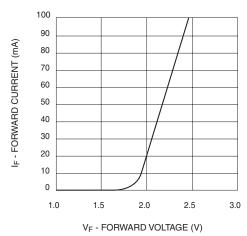


Fig. 1 Forward Current vs. Forward Voltage

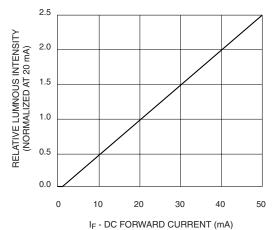


Fig. 2 Relative Luminous Intensity vs. DC Forward Current



AllnGaP Red / AllnGaP Green

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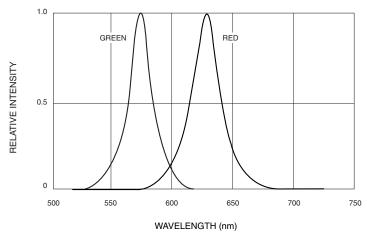
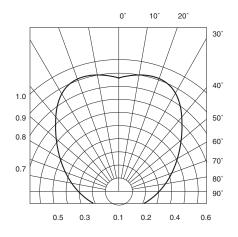


Fig. 3 Relative Intensity vs. Peak Wavelength



REL. LUMINOUS INTENSITY (%)

Fig. 4 Radiation Diagram

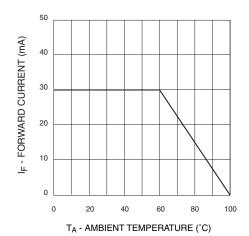


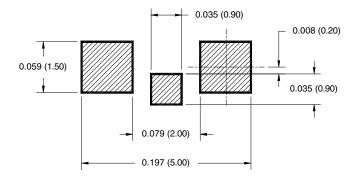
Fig. 5 Current Derating Curve



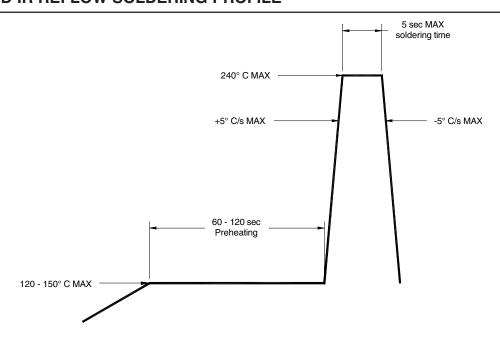
AllnGaP Red / AllnGaP Green

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#### RECOMMENDED PRINTED CIRCUIT BOARD PATTERN



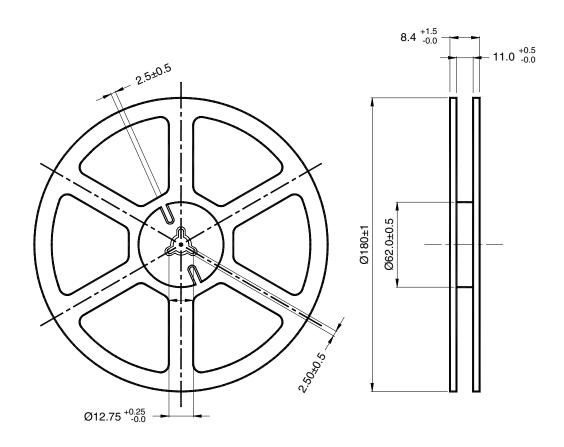
### RECOMMENDED IR REFLOW SOLDERING PROFILE

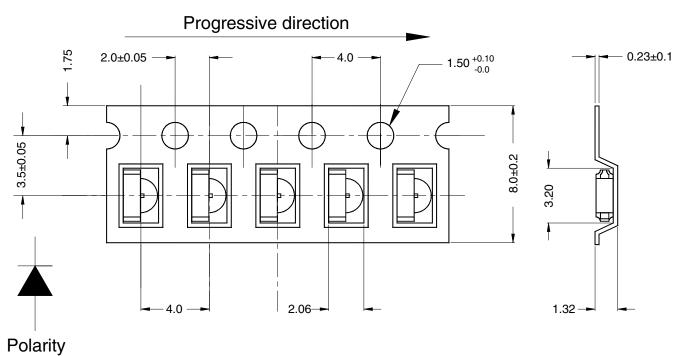




AllnGaP Red / AllnGaP Green

QTLP610C-RAG







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