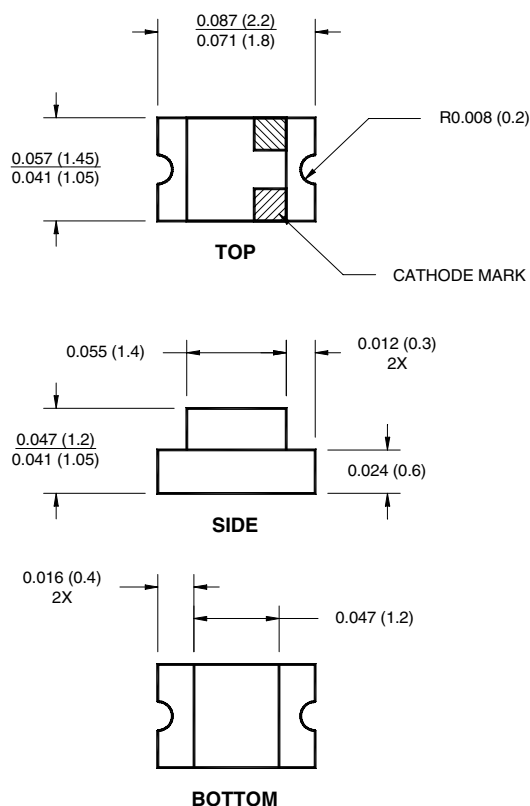


# SURFACE MOUNT LED LAMP

## 0805 Chip Type - Water Clear

### PACKAGE DIMENSIONS

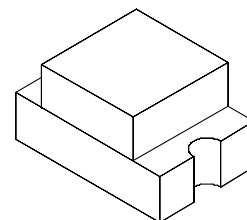


NOTE:  
Dimensions are in inches (mm).

Red	QTLP630C-R	Water Clear
Orange	QTLP630C-E	Water Clear
Yellow	QTLP630C-Y	Water Clear

### FEATURES

- Ultra-miniature and extremely low profile
- Industrial standard footprint
- AlInGaP technology
- Wide viewing angle of 140°
- Water clear optics
- Available in 0.42" (12mm) width tape on 7" (178mm) diameter.
- Moisture-proof packaging



### DESCRIPTION

These surface mount lamps are designed to fit industry standard profile and footprint for ultra-miniature chip type 0805. The low profile and 140° viewing angle, moisture-proof packaging makes this chip type LED ideal for panel illumination, push-button back-lighting and membrane switch applications.

### ABSOLUTE MAXIMUM RATINGS (T<sub>A</sub> = 25°C unless otherwise specified)

Parameter	Red QTLP630C-R	Orange QTLP630C-E	Yellow QTLP630C-Y	Units
Continuous Forward Current - I <sub>F</sub>	30	30	20	mA
Peak Forward Current - I <sub>F</sub> (f = 1.0 KHz, Duty Factor = 1/10)	160	160	200	mA
Reverse Voltage - V <sub>R</sub> (I <sub>R</sub> = 10 μA)	5	5	5	V
Power Dissipation - P <sub>D</sub>	85	100	100	mW
Operating Temperature - T <sub>OPR</sub>	-40 to +100			°C
Storage Temperature - T <sub>STG</sub>	-40 to +100			°C
Lead Soldering Time - T <sub>SOL</sub>				
Wave	260 for 5 sec			°C
Reflow	260 for 10 sec			

# SURFACE MOUNT LED LAMP

## Round Top (1206) Chip Type - Water Clear

Red	QTLP630C-R	Water Clear
Orange	QTLP630C-E	Water Clear
Yellow	QTLP630C-Y	Water Clear

### ELECTRICAL / OPTICAL CHARACTERISTICS (T<sub>A</sub> = 25°C)

Part Number	Red QTLP630C-R	Orange QTLP630C-E	Yellow QTLP630C-Y	Condition
Luminous Intensity (mcd)				I <sub>F</sub> = 20mA
Minimum	15	20	25	
Typical	30	40	50	
Forward Voltage (V)				I <sub>F</sub> = 20mA
Maximum	2.4	2.8	2.8	
Typical	1.9	2.1	2.1	
Peak Wavelength (nm)	630	620	590	I <sub>F</sub> = 20mA
Spectral Line Half Width (nm)	20	18	15	I <sub>F</sub> = 20mA
Viewing Angle (°)	140	140	140	I <sub>F</sub> = 20mA

### TYPICAL PERFORMANCE CURVES

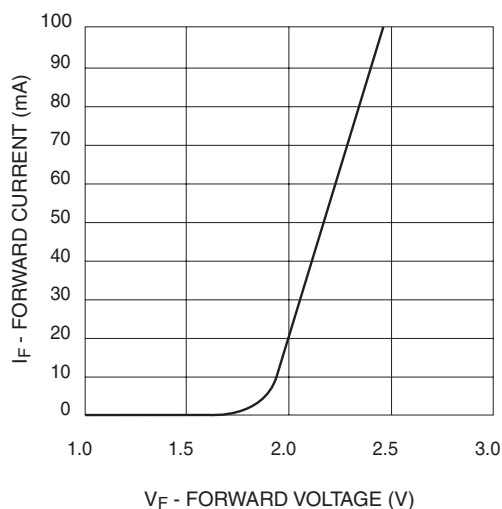


Fig. 1 Forward Current vs. Forward Voltage

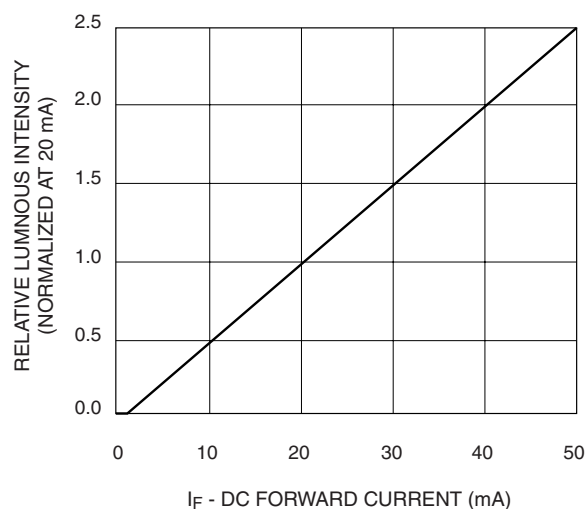


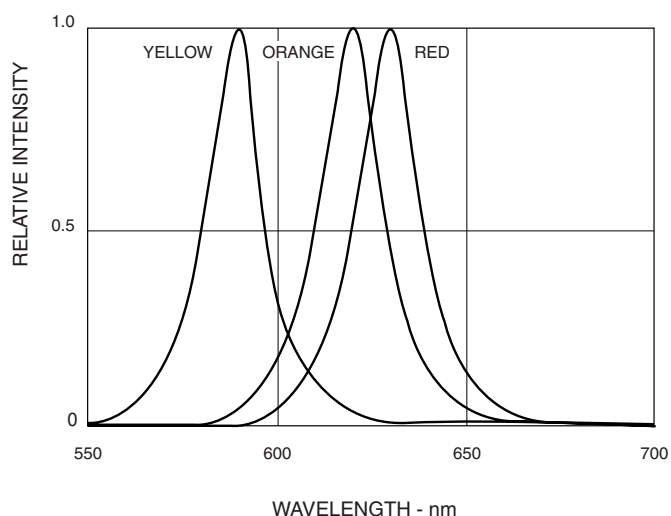
Fig. 2 Relative Luminous Intensity vs. DC Forward Current

# SURFACE MOUNT LED LAMP

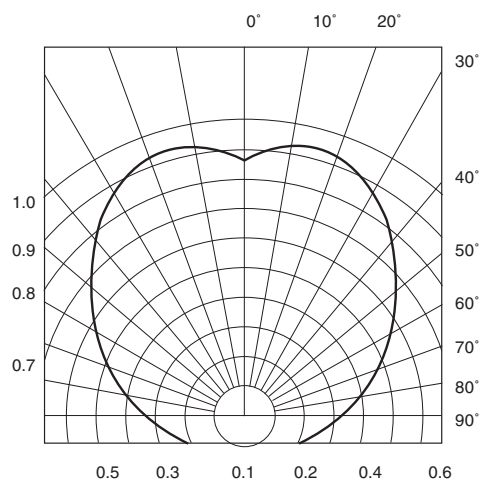
## Round Top (1206) Chip Type - Water Clear

Red	QTLP630C-R	Water Clear
Orange	QTLP630C-E	Water Clear
Yellow	QTLP630C-Y	Water Clear

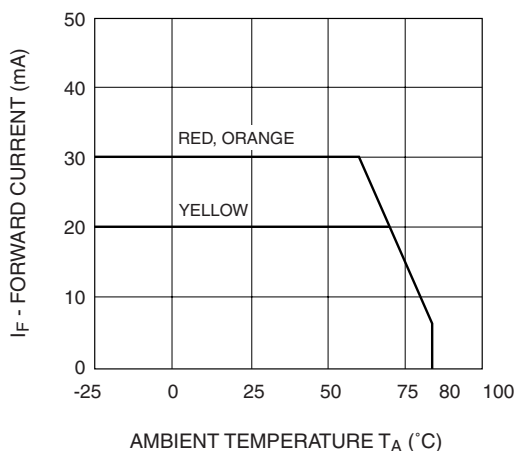
### TYPICAL PERFORMANCE CURVES



**Fig. 3 Relative Intensity vs Peak Wavelength**



**Fig. 4 Radiation Diagram**



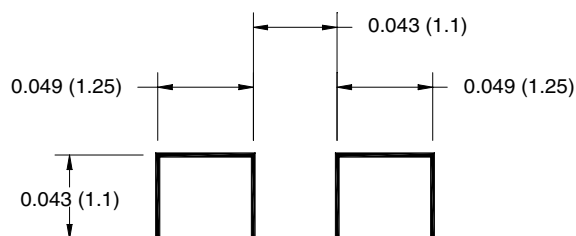
**Fig. 5 Forward Current vs. Ambient Temperature**

# SURFACE MOUNT LED LAMP

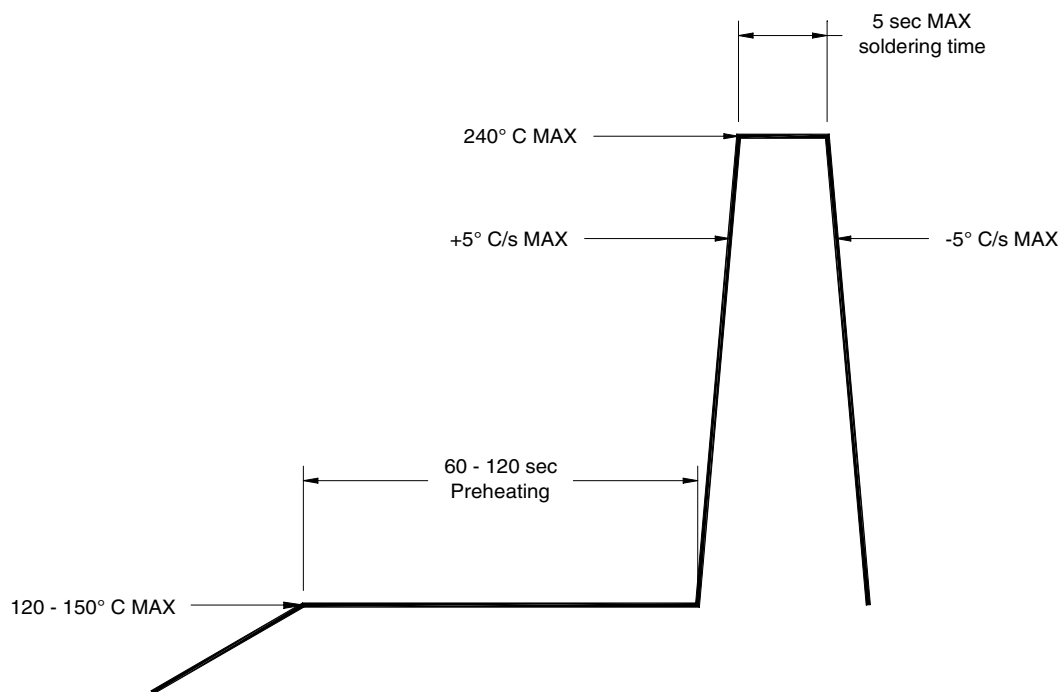
## Round Top (1206) Chip Type - Water Clear

Red	QTLP630C-R	Water Clear
Orange	QTLP630C-E	Water Clear
Yellow	QTLP630C-Y	Water Clear

### RECOMMENDED PRINTED CIRCUIT BOARD PATTERN



### RECOMMENDED IR REFLOW SOLDERING PROFILE



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