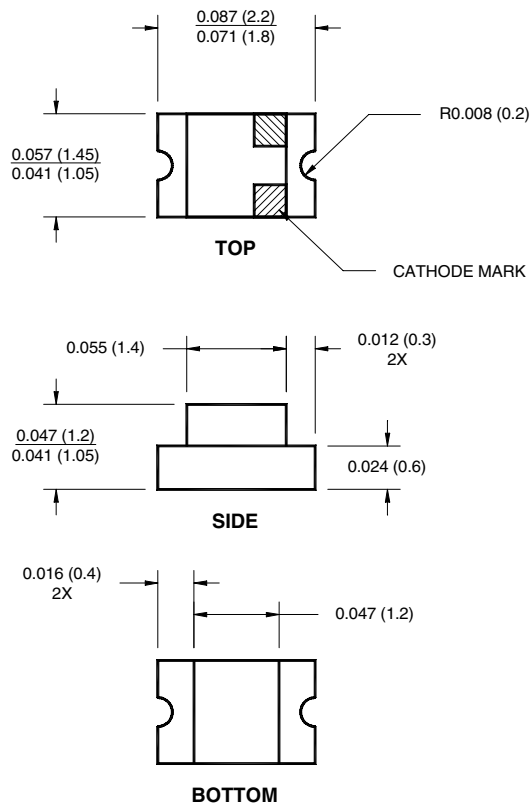


# SURFACE MOUNT LED LAMP

## 0805 Chip Type - Water Clear

### PACKAGE DIMENSIONS

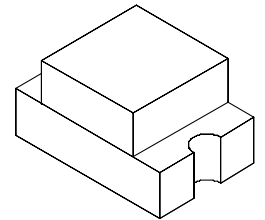


NOTE:  
Dimensions are in inches (mm).

HER	QTLP630C-2
Yellow	QTLP630C-3
Green	QTLP630C-4
AlGaAs Red	QTLP630C-7

### FEATURES

- Ultra-miniature and extremely low profile
- Industrial standard footprint
- Wide viewing angle of 140°
- Water clear optics
- 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 make this chip type LED ideal for panel illumination, push-button backlighting and membrane switch applications.

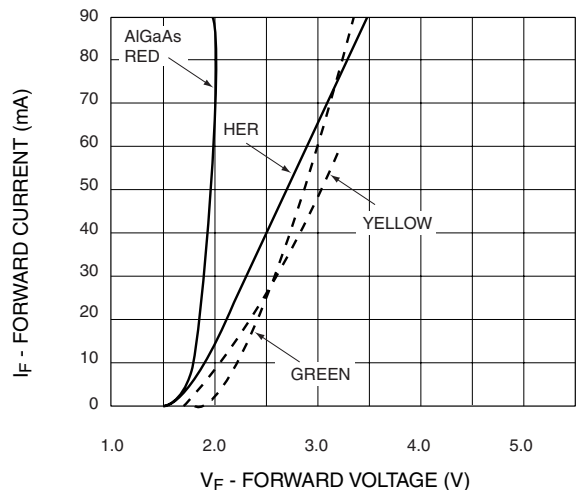
### ABSOLUTE MAXIMUM RATINGS (T<sub>A</sub> = 25°C unless otherwise specified)

Parameter	HER QTLP630C-2	Yellow QTLP630C-3	Green QTLP630C-4	AlGaAs Red QTLP630C-7	Units
Continuous Forward Current - I <sub>F</sub>	30	20	30	30	mA
Peak Forward Current - I <sub>F</sub> (f = 1.0 KHz, Duty Factor = 1/10)	160	160	160	160	mA
Reverse Voltage - V <sub>R</sub> (I <sub>R</sub> = 10 μA)	5	5	5	5	V
Power Dissipation - P <sub>D</sub>	100	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>					°C
Wave	260 for 5 sec				
Reflow	260 for 10 sec				

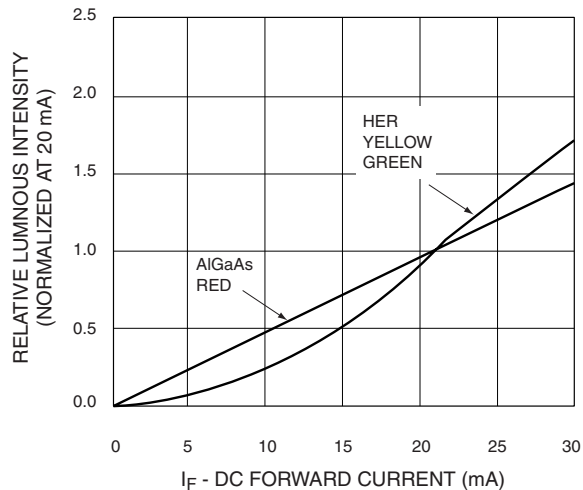
<b>HER</b>	<b>QTLP630C-2</b>
<b>Yellow</b>	<b>QTLP630C-3</b>
<b>Green</b>	<b>QTLP630C-4</b>
<b>AlGaAs Red</b>	<b>QTLP630C-7</b>

<b>ELECTRICAL / OPTICAL CHARACTERISTICS</b> ( $T_A = 25^\circ\text{C}$ )					
Part Number	HER QTLP630C-2	Yellow QTLP630C-3	Green QTLP630C-4	AlGaAs Red QTLP630C-7	Condition
Luminous Intensity (mcd)					$I_F = 20\text{mA}$
Minimum	4	5	7	10	
Typical	15	15	20	20	
Forward Voltage (V)					$I_F = 20\text{mA}$
Maximum	2.8	2.8	2.8	2.4	
Typical	2.0	2.0	2.1	1.7	
Peak Wavelength (nm)	635	585	565	660	$I_F = 20\text{mA}$
Spectral Line Half Width (nm)	45	35	30	20	$I_F = 20\text{mA}$
Viewing Angle ( $^\circ$ )	140	140	140	140	$I_F = 20\text{mA}$

### TYPICAL PERFORMANCE CURVES



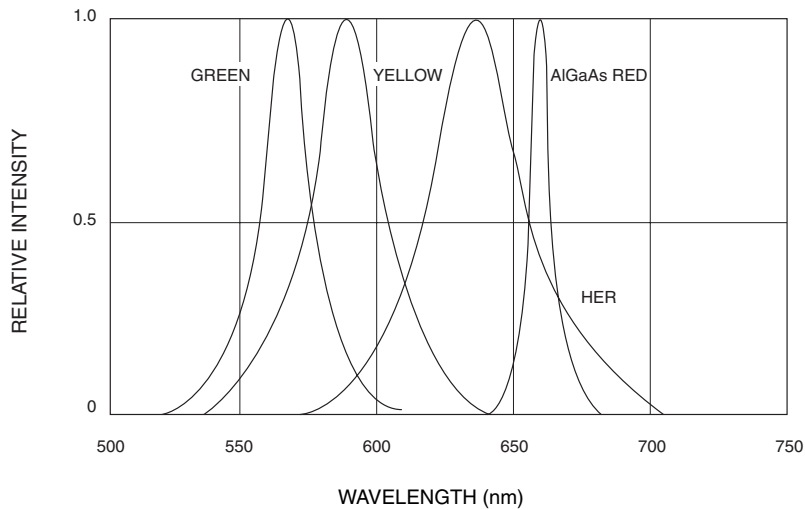
**Fig. 1 Forward Current vs. Forward Voltage**



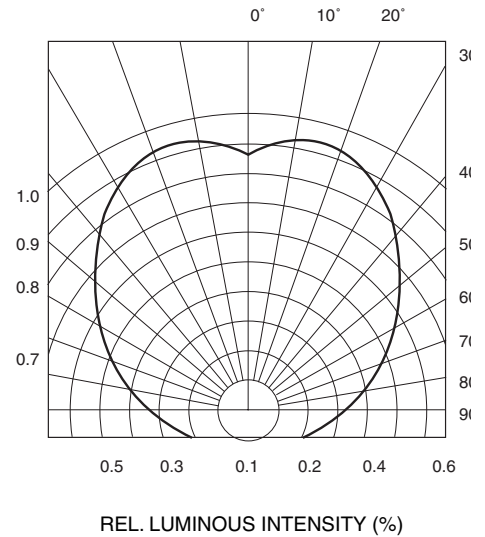
**Fig. 2 Relative Luminous Intensity vs. DC Forward Current**

HER	QTLP630C-2
Yellow	QTLP630C-3
Green	QTLP630C-4
AlGaAs Red	QTLP630C-7

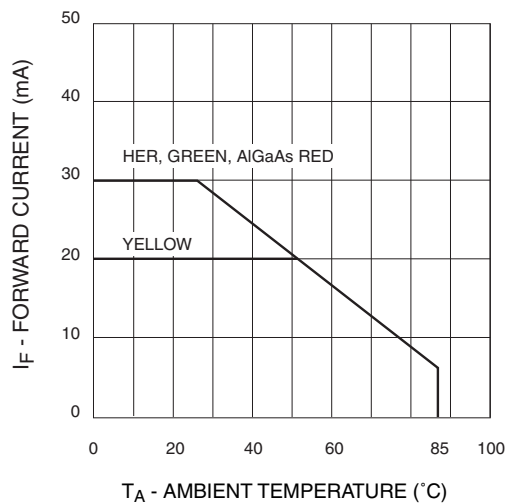
### TYPICAL PERFORMANCE CURVES



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



**Fig. 4 Radiation Diagram**



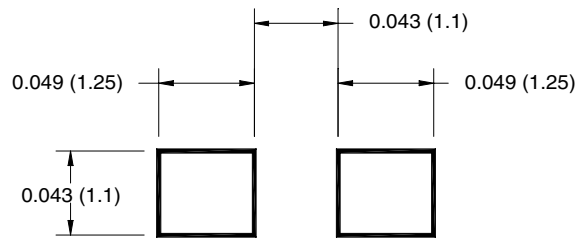
**Fig. 5 Current Derating Curve**

# SURFACE MOUNT LED LAMP

## 0805 Chip Type - Water Clear

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Yellow	QTLP630C-3
Green	QTLP630C-4
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### RECOMMENDED PRINTED CIRCUIT BOARD PATTERN



### RECOMMENDED IR REFLOW SOLDERING PROFILE

