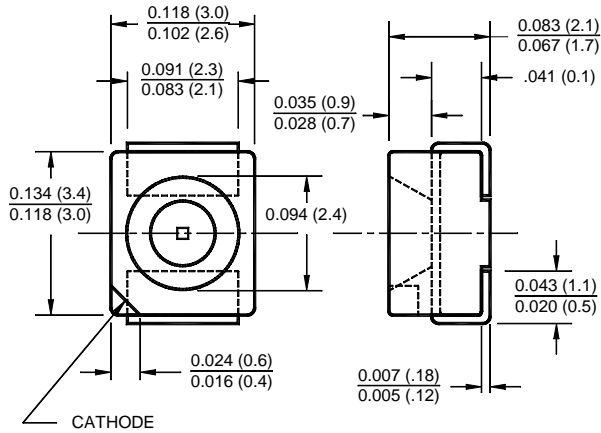


# SURFACE MOUNT LED LAMP

## PLCC - 2 PACKAGE

### PACKAGE DIMENSIONS



NOTE:

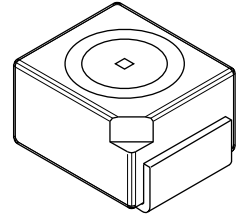
Dimensions for all drawings are in inches (mm).

**ORANGE**  
**PURE GREEN**

**QTLP670C-8**  
**QTLP670C-5**

### FEATURES

- Non-diffused package excellent for back-lighting and coupling to light pipe
- Low package profile
- Low power dissipation
- Wide viewing angle of 120°



### DESCRIPTION

This surface mount lamp is designed with a flat top and sides for automatic placement equipment. It is compatible with convective IR and vapor phase reflow soldering and conductive epoxy attachment process. The package size and configuration conform to EIA-535 BAAC standard specification for case size 3528 tantalum capacitor.

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

Parameter	Symbol	Rating	Unit
Operating Temperature	T <sub>OPR</sub>	-40 to +85	°C
Storage Temperature	T <sub>STG</sub>	-40 to +100	°C
Lead Soldering Time - Reflow	T <sub>SOL</sub>	240 for 5 sec	°C
Continuous Forward Current	I <sub>F</sub>	30	mA
Peak Forward Current (f = 1.0 KHz, Duty Factor = 1/10)	I <sub>F</sub>	160	mA
Reverse Voltage	V <sub>R</sub> (I <sub>R</sub> = 10 μA)	5	V
Power Dissipation	P <sub>D</sub>	100	mW

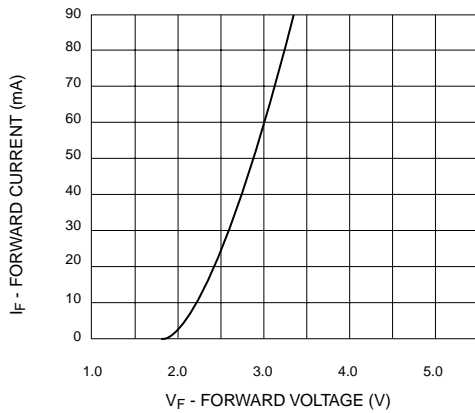
### ELECTRICAL / OPTICAL CHARACTERISTICS (T<sub>A</sub> = 25°C)

Part Number	QTLP670C-8 ORANGE	QTLP670C-5 PURE GREEN	Condition
Luminous Intensity (mcd)			I <sub>F</sub> = 20 mA
Minimum	9	4	
Typical	15	6	
Forward Voltage (V)			I <sub>F</sub> = 20 mA
Maximum	2.8	2.8	
Typical	2.0	2.0	
Peak Wavelength (nm)	610	555	I <sub>F</sub> = 20 mA
Spectral Line Half Width (nm)	40	30	I <sub>F</sub> = 20 mA
Viewing Angle (°)	120	120	I <sub>F</sub> = 20 mA

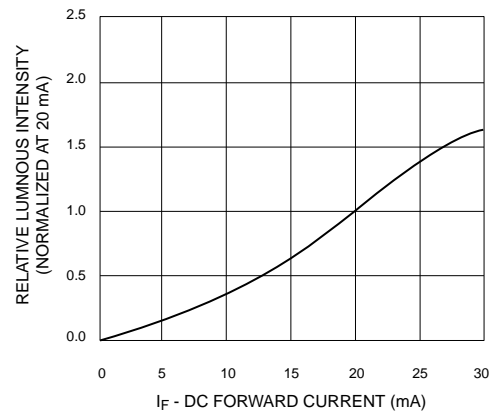
**ORANGE**  
**PURE GREEN**

**QTLP670C-8**  
**QTLP670C-5**

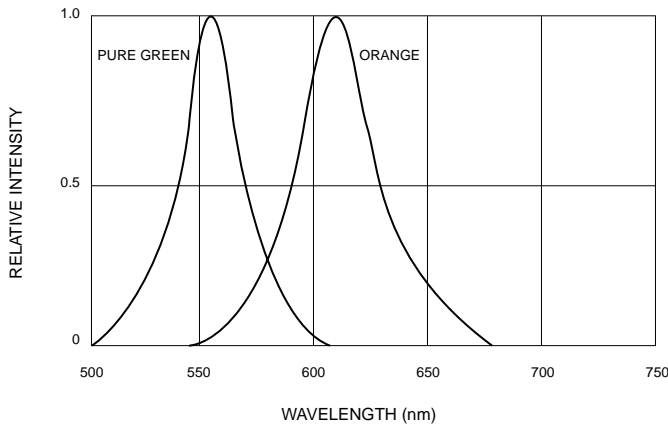
### TYPICAL PERFORMANCE CURVES



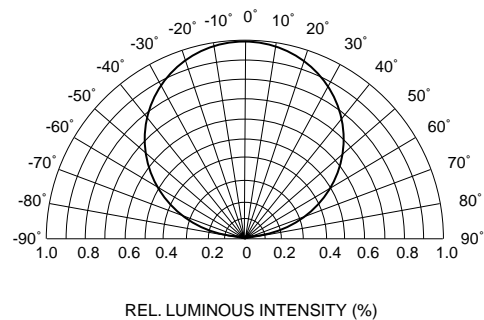
**Fig. 1 Forward Current vs. Forward Voltage**



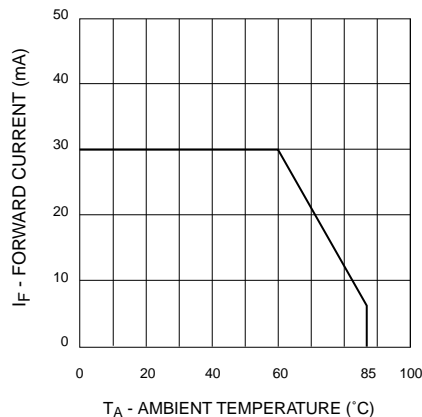
**Fig. 2 Relative Luminous Intensity vs. DC Forward Current**



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



**Fig. 4 Radiation Diagram**

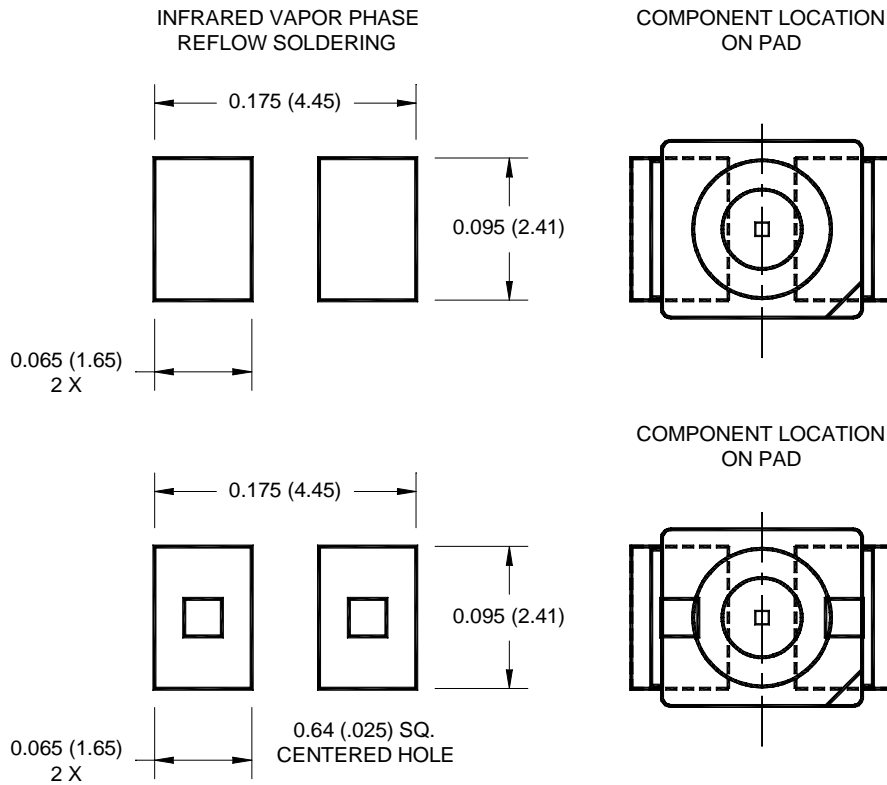


**Fig. 5 Current Derating Curve**

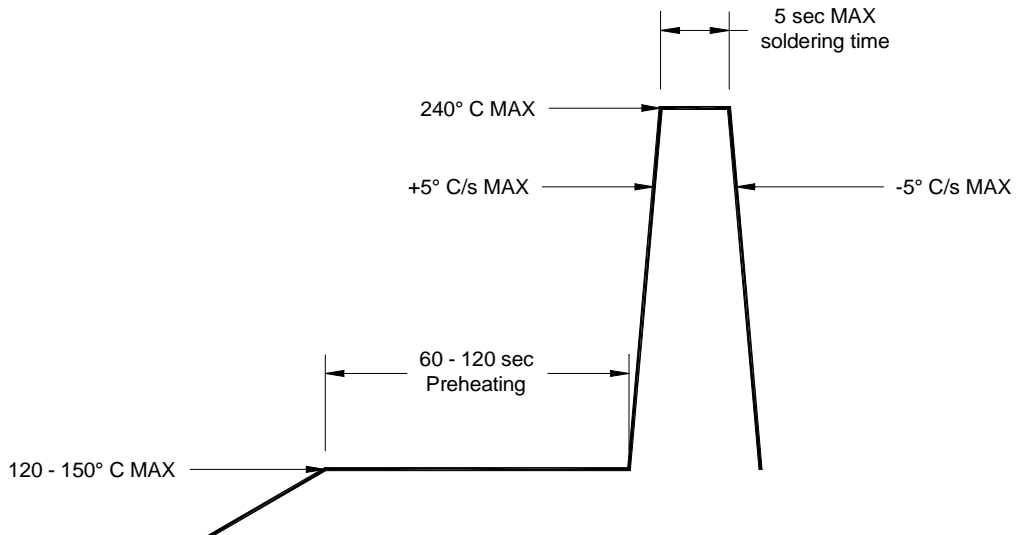
ORANGE  
PURE GREEN

QTLP670C-8  
QTLP670C-5

### RECOMMENDED PRINTED CIRCUIT BOARD PATTERN



### RECOMMENDED IR REFLOW SOLDERING PROFILE



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