



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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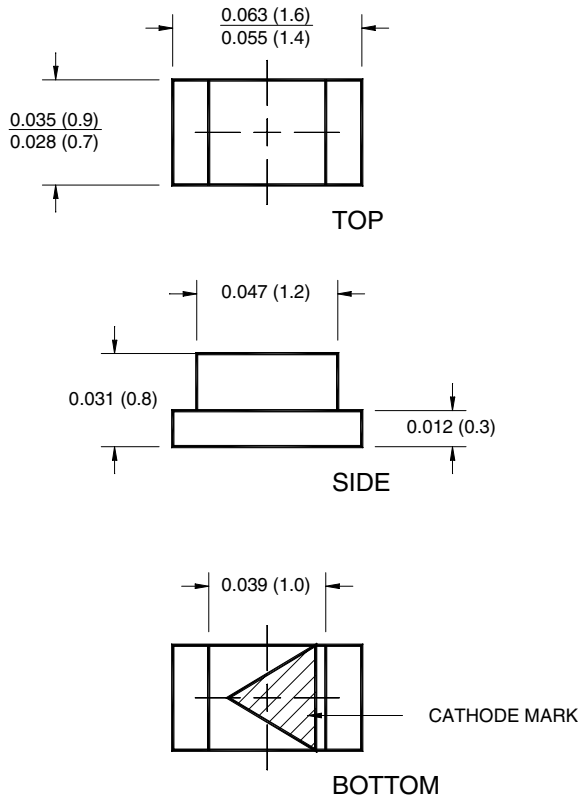
Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



SURFACE MOUNT LED LAMP

Super Bright (0603) Chip Type - Water Clear

PACKAGE DIMENSIONS



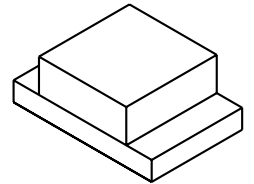
NOTE:

Dimensions for all drawings are in inches (mm).

SUPER BRIGHT RED	QTLP600C-R
SUPER BRIGHT ORANGE	QTLP600C-E
SUPER BRIGHT YELLOW	QTLP600C-Y

FEATURES

- AllInGaP technology
- Ultra-miniature
- Industrial standard footprint
- Water clear optics
- Moisture-proof packaging
- Available in 0.315" (8mm) width tape on 7" (178mm) diameter



DESCRIPTION

These surface mount lamps are designed to fit industry standard profile and footprint for the ultra-miniature chip type 0603. The low profile package and 100° viewing angle make this chip type LED ideal for panel illumination, push button lighting and membrane switch applications.

ABSOLUTE MAXIMUM RATINGS ($T_A = 25^\circ\text{C}$ unless otherwise specified)

Parameter	RED QTLP600C-R	ORANGE QTLP600C-E	YELLOW QTLP600C-Y	Units
Continuous Forward Current - I_F	30	30	20	mA
Peak Forward Current - I_F ($f = 1.0$ KHz, Duty Factor = 1/10)	160	160	200	mA
Reverse Voltage - V_R ($I_R = 10 \mu\text{A}$)	5	5	5	V
Power Dissipation - P_D	85	100	100	mW
Operating Temperature - T_{OPR}	-40 to +85			$^\circ\text{C}$
Storage Temperature - T_{STG}	-40 to +100			$^\circ\text{C}$
Lead Soldering Time - T_{SOL}				$^\circ\text{C}$
Wave	260 for 5 sec			
Reflow	260 for 10 sec			

SUPER BRIGHT RED	QTLP600C-R
SUPER BRIGHT ORANGE	QTLP600C-E
SUPER BRIGHT YELLOW	QTLP600C-Y

ELECTRICAL / OPTICAL CHARACTERISTICS (T_A = 25°C)

Part Number	RED QTLP600C-R	ORANGE QTLP600C-E	YELLOW QTLP600C-Y	Condition
Luminous Intensity (mcd)				I _F = 20mA
Minimum	20	20	20	
Typical	40	40	40	
Forward Voltage (V)				I _F = 20mA
Maximum	2.4	2.8	2.8	
Typical	2.0	2.1	2.1	
Peak Wavelength (nm)	630	620	590	I _F = 20mA
Spectral Line Half Width (nm)	20	18	15	I _F = 20mA
Viewing Angle (°)	100	100	100	I _F = 20mA

TYPICAL PERFORMANCE CURVES

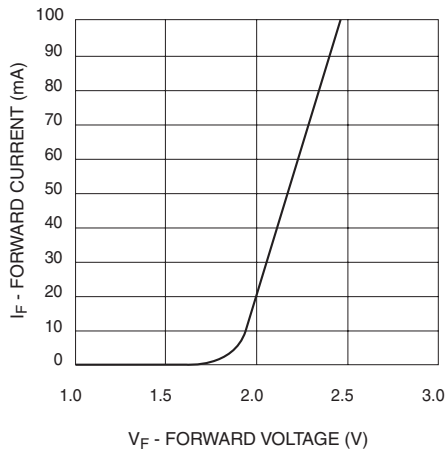


Fig. 1 Forward Current vs. Forward Voltage

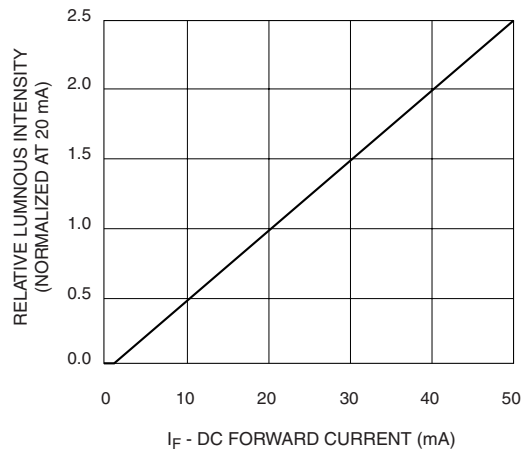


Fig. 2 Relative Luminous Intensity vs. DC Forward Current

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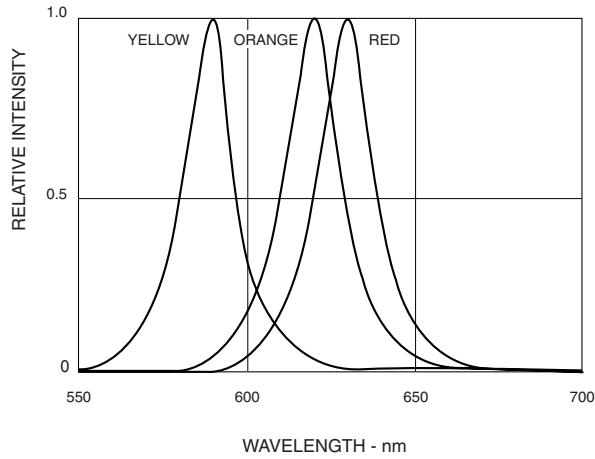


Fig. 3 Relative Intensity vs Peak Wavelength

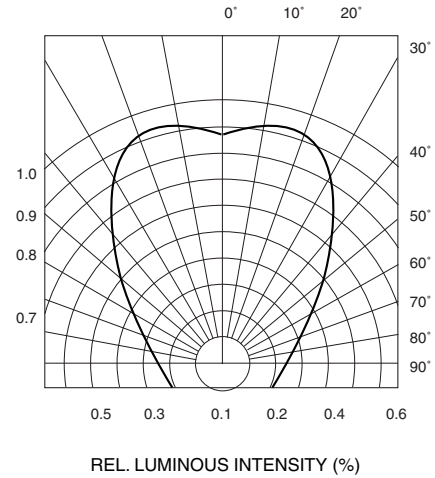


Fig. 4 Radiation Diagram

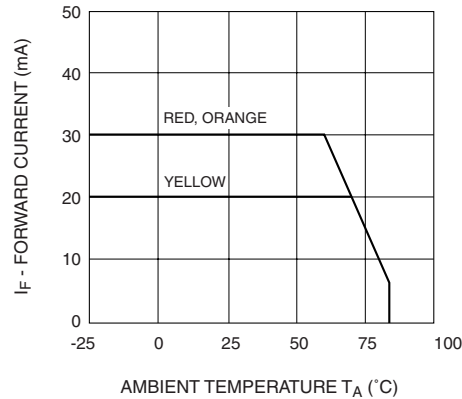


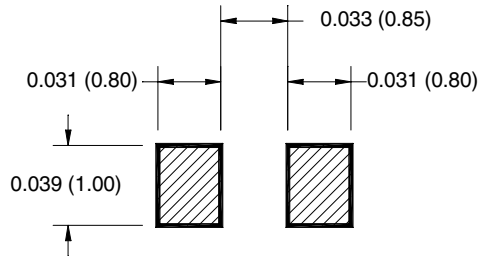
Fig. 5 Forward Current vs. Ambient Temperature

SURFACE MOUNT LED LAMP

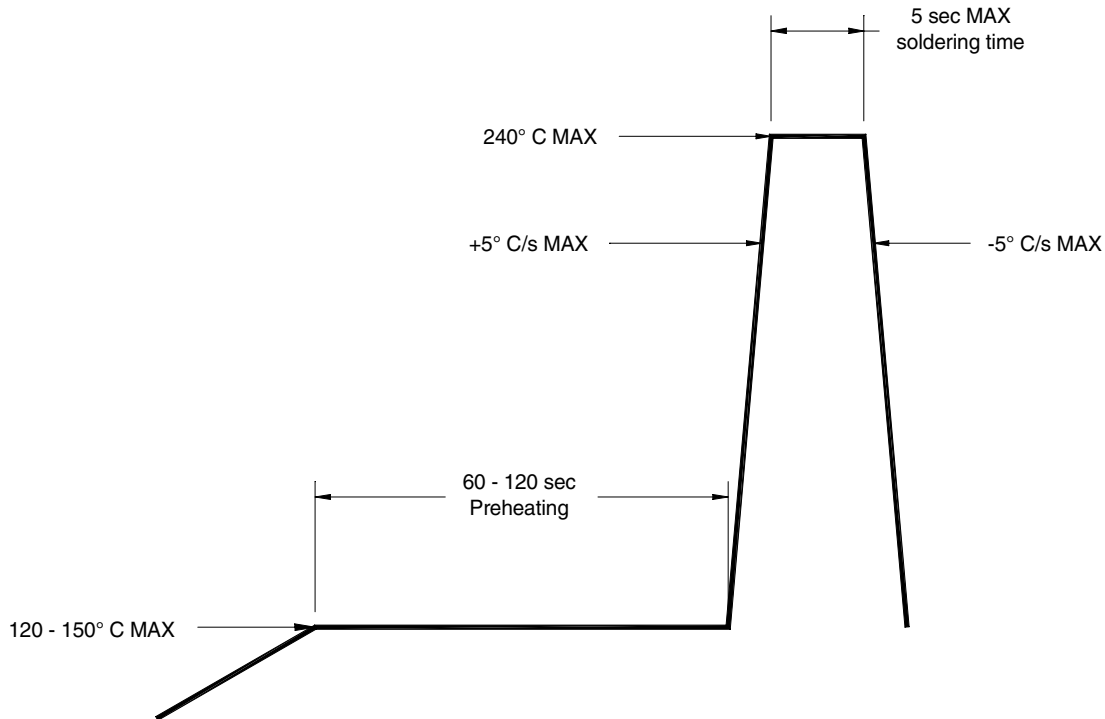
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RECOMMENDED PRINTED CIRCUIT BOARD PATTERN



RECOMMENDED IR REFLOW SOLDERING PROFILE



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