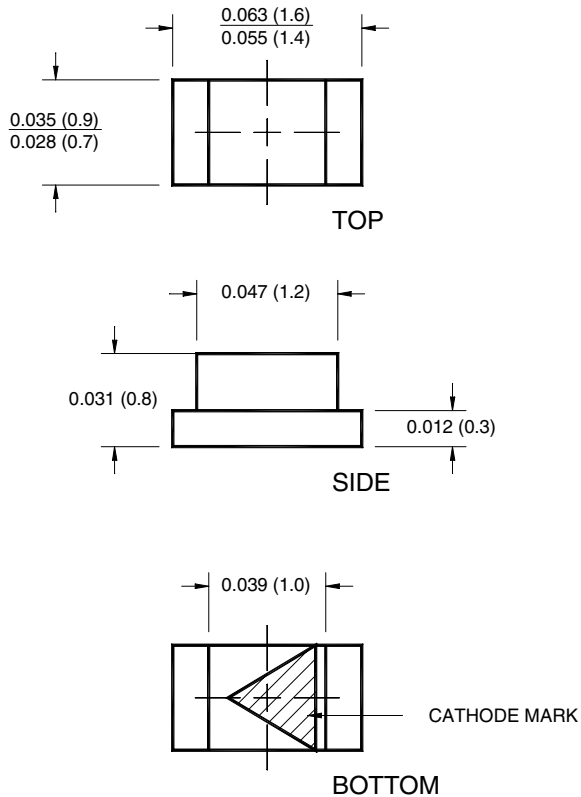


SURFACE MOUNT LED LAMP

Super Bright (0603) Chip Type - Water Clear

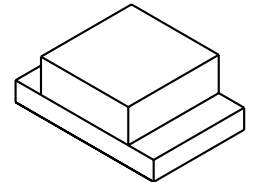
PACKAGE DIMENSIONS



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°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 μA)	5	5	5	V
Power Dissipation - P _D	85	100	100	mW
Operating Temperature - T _{OPR}	-40 to +85			°C
Storage Temperature - T _{STG}	-40 to +100			°C
Lead Soldering Time - T _{SOL}				°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

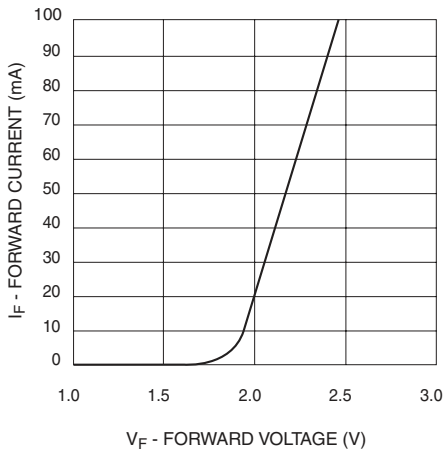


Fig. 1 Forward Current vs. Forward Voltage

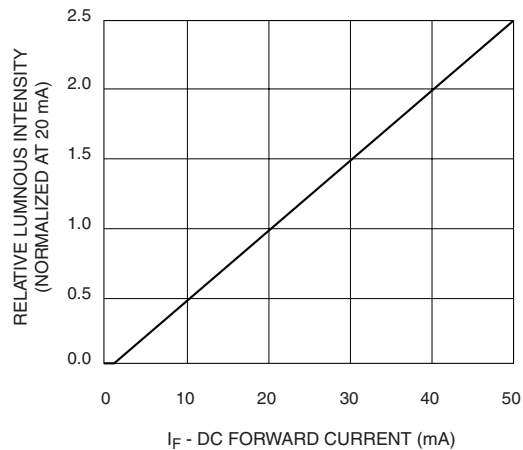


Fig. 2 Relative Luminous Intensity vs. DC Forward Current

SURFACE MOUNT LED LAMP

Super Bright (0603) Chip Type - Water Clear

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

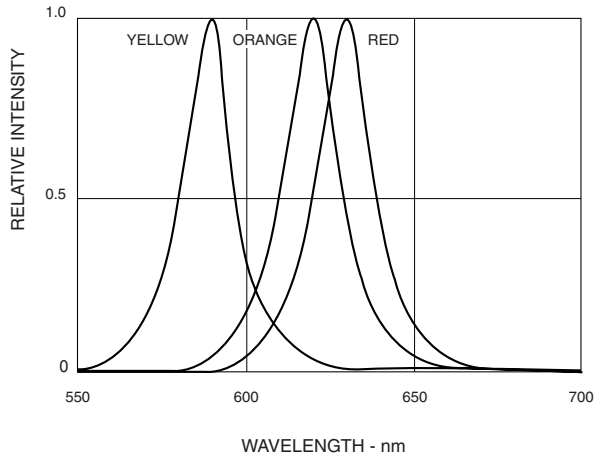


Fig. 3 Relative Intensity vs Peak Wavelength

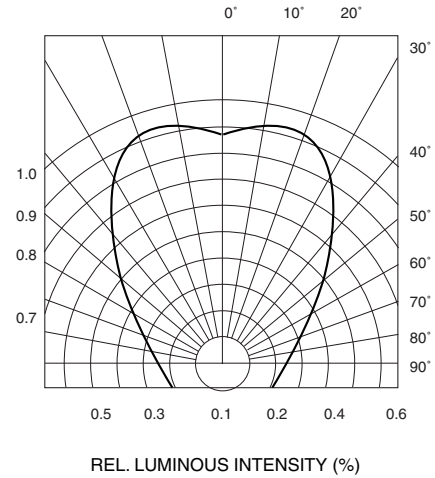


Fig. 4 Radiation Diagram

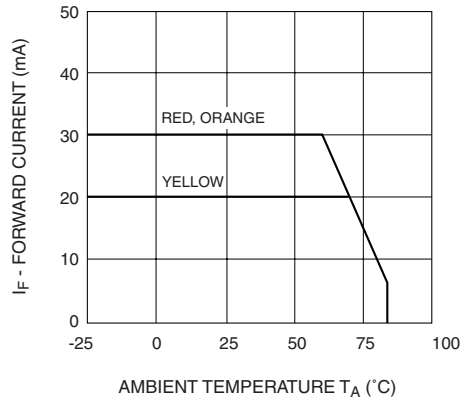


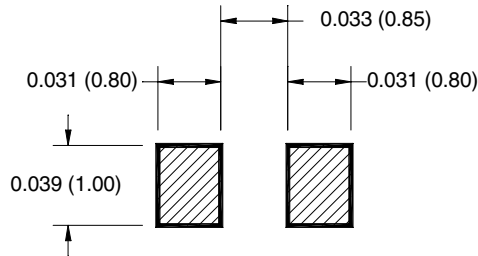
Fig.5 Forward Current vs. Ambient Temperature

SURFACE MOUNT LED LAMP

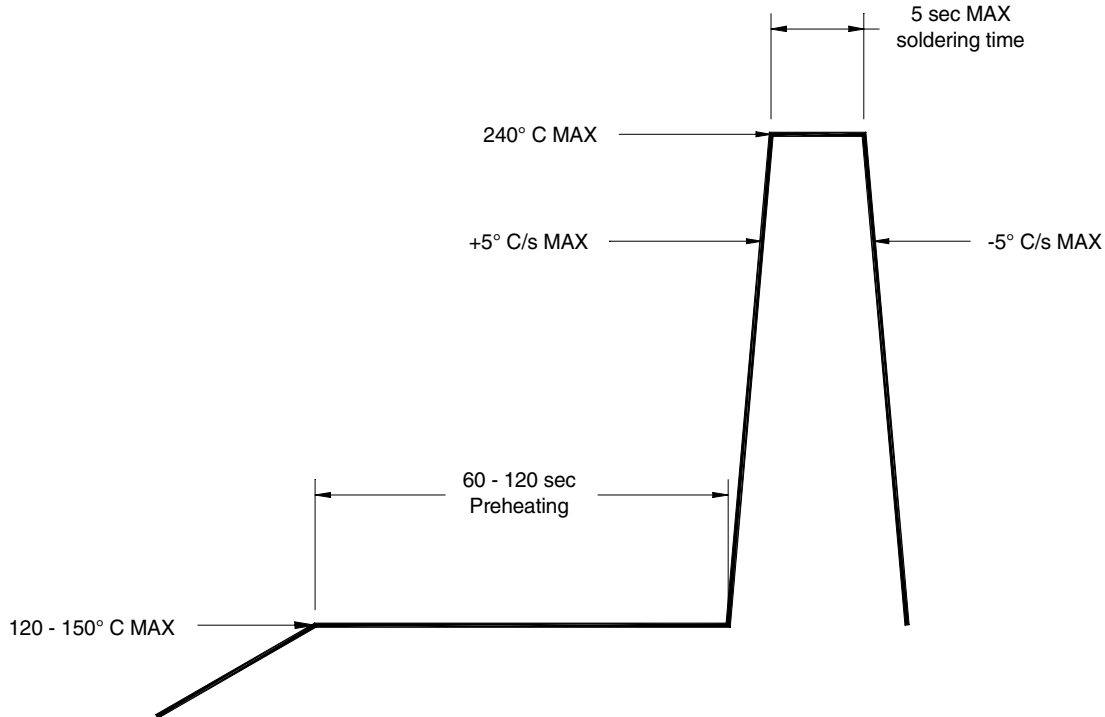
Super Bright (0603) Chip Type - Water Clear

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

RECOMMENDED PRINTED CIRCUIT BOARD PATTERN



RECOMMENDED IR REFLOW SOLDERING PROFILE



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