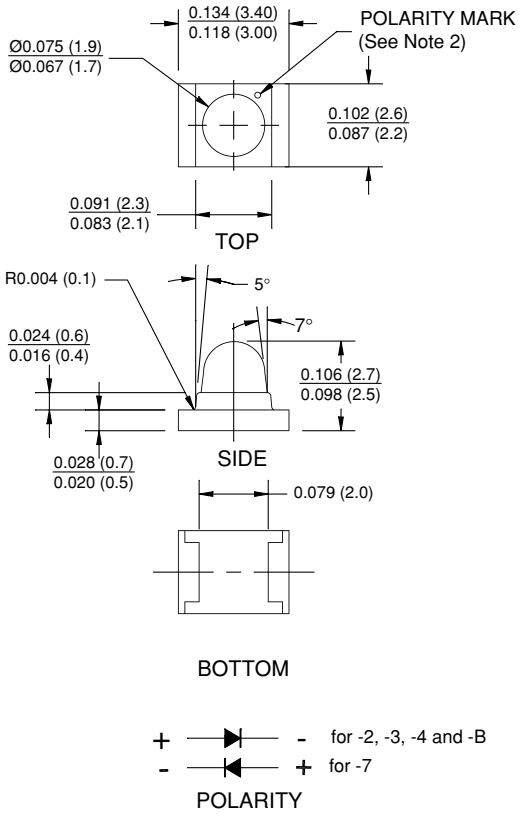
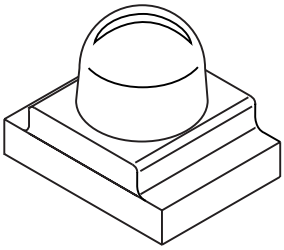
SURFACE MOUNT LED LAMP
STANDARD BRIGHT 1.8mm (Dome Lens)

QTLP660C-2 HER
QTLP660C-3 Yellow
QTLP660C-4 Green
QTLP660C-7 AlGaAs Red
QTLP660C-B Blue

PACKAGE DIMENSIONS



NOTE:
1. Dimensions for all drawings are in inches (mm).
2. Cathode for -2, -3, -4 and B. Anode for -7.



APPLICATIONS

- Backlighting
- Status indication for consumer electronics and other equipment

DESCRIPTION

These surface mount chip LEDs are designed with a 1.8 mm dome lens that focuses the light output.

FEATURES

- Small footprint - 3.2(L) X 2.4(W) X 2.6(H) mm
- Narrow viewing angle of 30°
- Water clear
- Moisture-proof packaging
- Available in 0.315" (8mm) width tape on 7" (178mm) diameter reel; 2,000 units per reel

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ABSOLUTE MAXIMUM RATINGS (T_A =25°C Unless otherwise specified)

Parameter	Symbol	QTLP660C					Units
		-2	-3	-4	-7	-B	
Continuous Forward Current	I_F	30	30	30	30	30	mA
Peak Forward Current (f = 1.0 KHz, Duty Factor = 1/10)	I_{FM}	160	160	160	180	100	mA
Reverse Voltage (I_R = 10 µA)	V_R	5	5	5	5	5	V
Power Dissipation	P_D	84	84	84	72	135	mW
Operating Temperature	T_{OPR}	-40 to +85					°C
Storage Temperature	T_{STG}	-40 to +90					°C
Lead Soldering Time	T_{SOL}	260 for 5 sec					°C

ELECTRICAL / OPTICAL CHARACTERISTICS (T_A =25°C)

Part Number	Symbol	QTLP660C					Condition
		-2	-3	-4	-7	-B	
Luminous Intensity (mcd) Minimum	I_V	20	35	70	110	80	I_F = 20mA
Typical		40	60	120	190	110	
Forward Voltage (V) Maximum	V_F	2.8	2.8	2.8	2.4	4.5	I_F = 20mA
Typical		2.0	2.0	2.1	1.9	3.8	
Wavelength (nm) Peak	λ_P	635	585	565	660	430	I_F = 20mA
Dominant	λ_D	630	590	570	645	465	
Spectral Line Half Width (nm)	$\Delta\lambda$	45	35	30	20	65	I_F = 20mA
Viewing Angle (°)	$2\Theta_{1/2}$	30	30	30	30	30	I_F = 20mA

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TYPICAL PERFORMANCE CURVES

Fig. 1 Forward Current vs. Forward Voltage

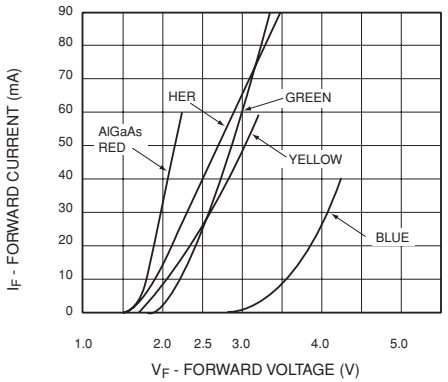


Fig. 2 Relative Luminous Intensity vs. DC Forward Current

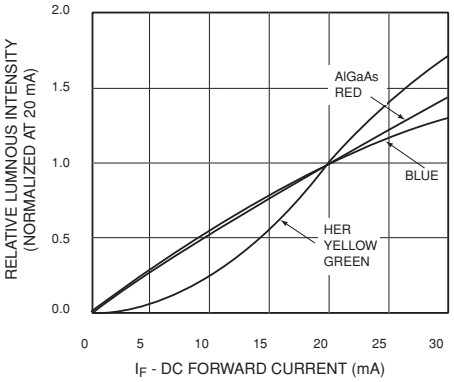


Fig. 3 Relative Intensity vs. Peak Wavelength

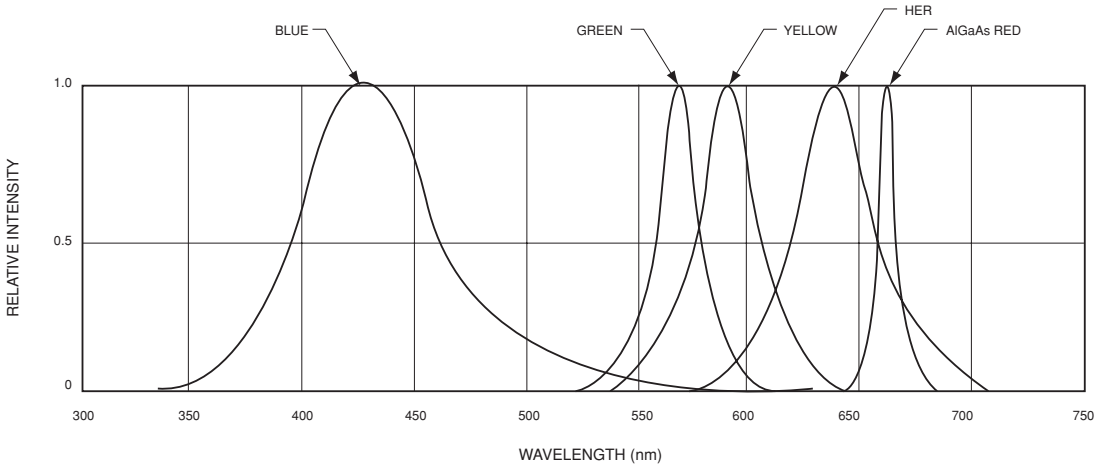


Fig.4 Radiation Diagram

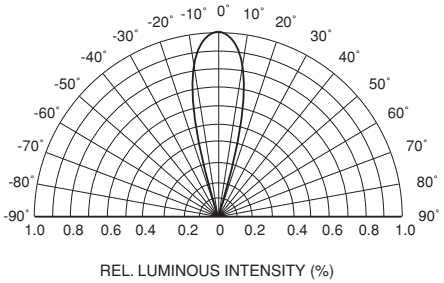
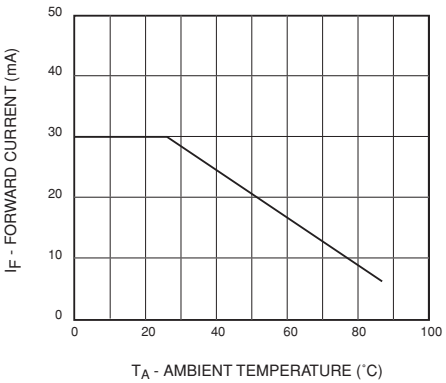


Fig.5 Maximum Forward Current vs. Ambient Temperature

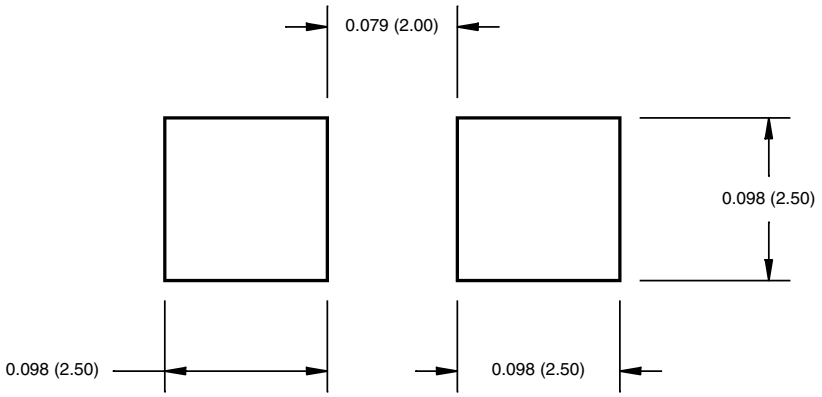


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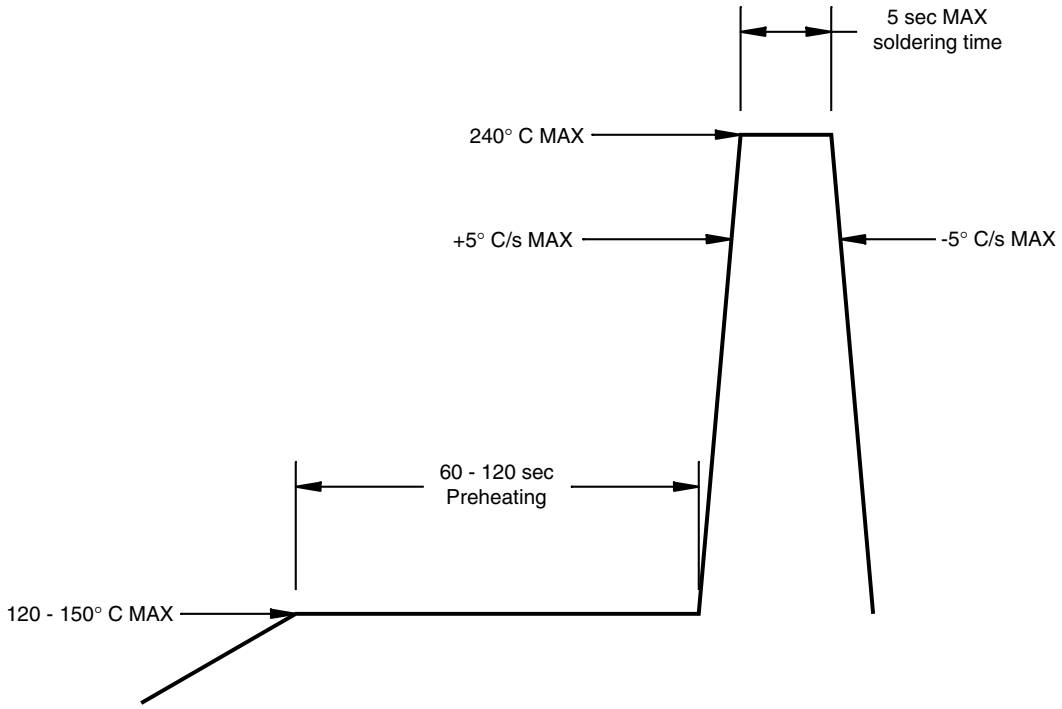
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RECOMMENDED PRINTED CIRCUIT BOARD PATTERN



RECOMMENDED IR REFLOW SOLDERING PROFILE

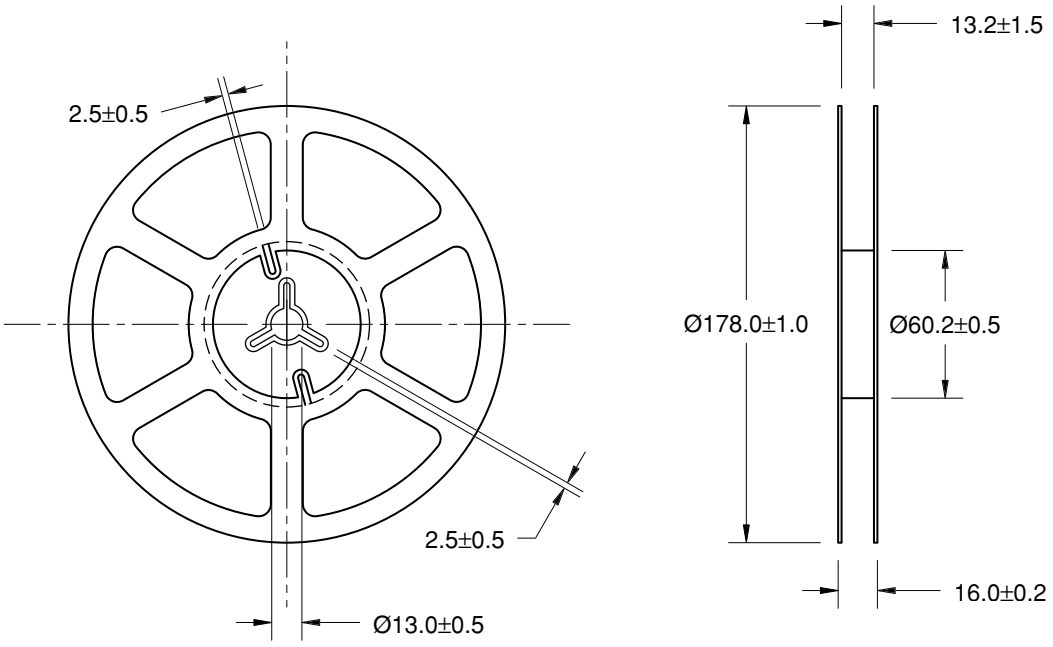


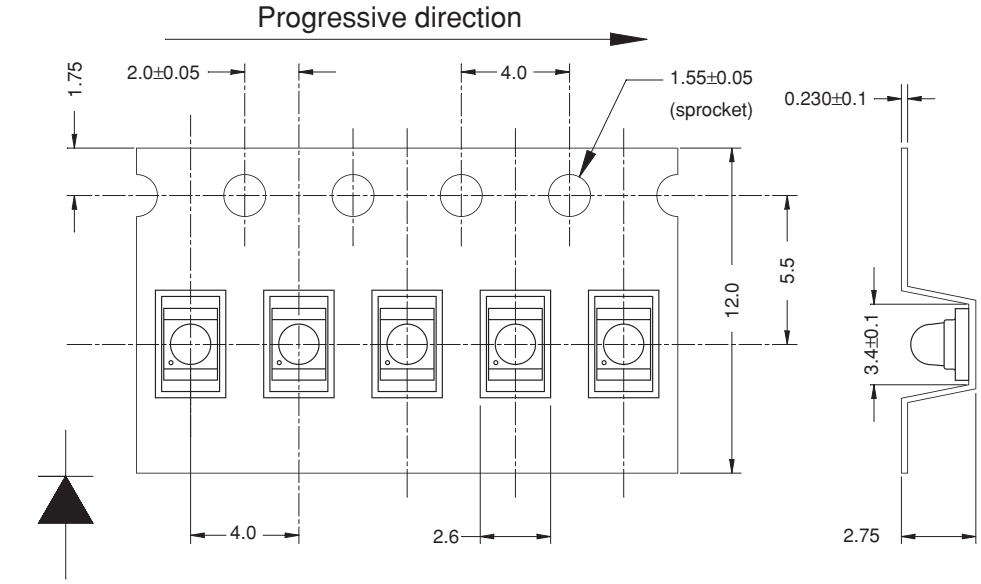
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TAPE AND REEL DIMENSIONS





for -7

Polarity

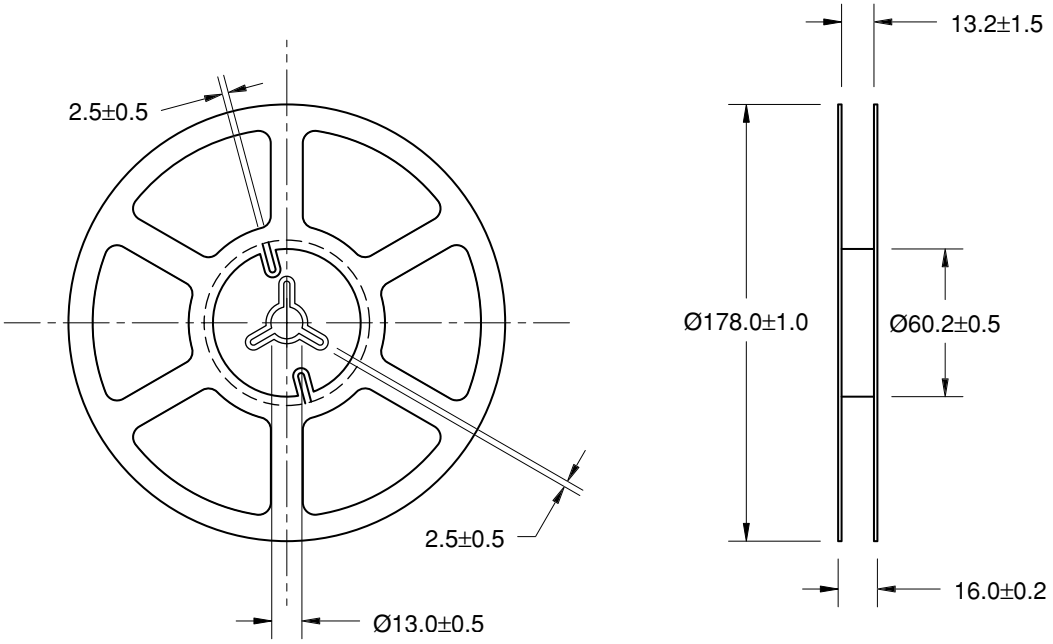
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Angle: ± 0.5
Unit: mm
Polarity marks on the opposite sprocket side.

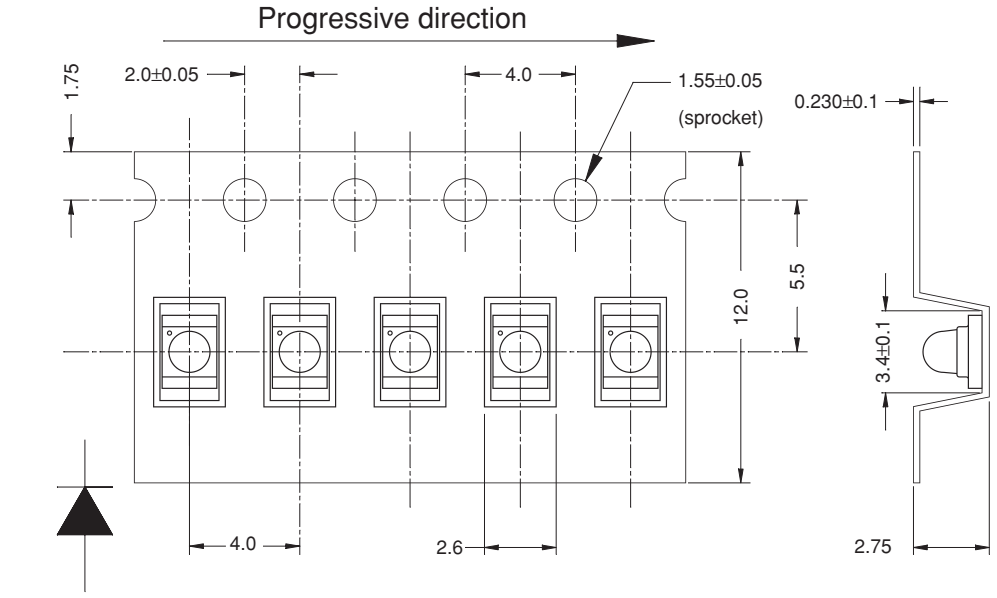
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TAPE AND REEL DIMENSIONS





for -2, -3, -4 and -B

Polarity

Dimensional tolerance is ± 0.1mm unless otherwise specified
Angle: ± 0.5
Unit: mm
Polarity marks on the sprocket side.

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