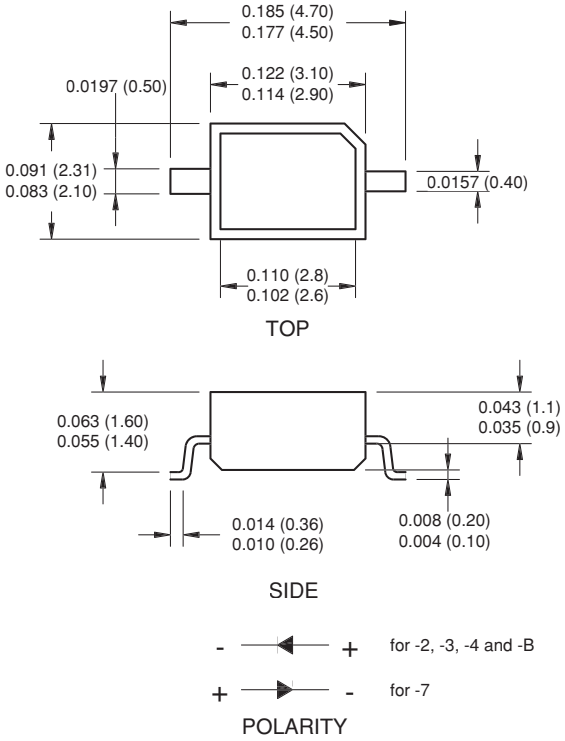
SURFACE MOUNT LED LAMP
STANDARD BRIGHT REFLECTOR

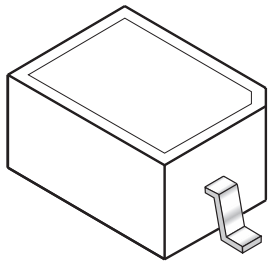
QTLP680C-2 HER
QTLP680C-3 Yellow
QTLP680C-4 Green
QTLP680C-7 AlGaAs Red
QTLP680C-B Blue

PACKAGE DIMENSIONS



NOTE:

1. Dimensions for all drawings are in inches (mm).



APPLICATIONS

- Backlighting
- Status indication for consumer electronics and other equipment

DESCRIPTION

Designed with a reflective housing, these surface mount LEDs offer uniform lighting and high light output performance.

FEATURES

- Wide viewing angle of 130°
- Water clear optics
- Moisture-proof packaging
- Available in 0.315" (8mm) width tape on 7" (178mm) diameter reel; 2,000 units per reel

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FAIRCHILD SEMICONDUCTOR®

SURFACE MOUNT LED LAMP
STANDARD BRIGHT REFLECTOR

QTLP680C-2 HER
QTLP680C-3 Yellow
QTLP680C-4 Green
QTLP680C-7 AlGaAs Red
QTLP680C-B Blue

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

Parameter	Symbol	QTLP680C					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 +100					°C
Lead Soldering Time	T_{SOL}	260 for 5 sec					°C

ELECTRICAL / OPTICAL CHARACTERISTICS (T_A =25°C)

Part Number	Symbol	QTLP680C					Condition
		-2	-3	-4	-7	-B	
Luminous Intensity (mcd)							
Minimum	I_V	7	7	15	25	15	I_F = 20mA
Typical		15	15	25	40	20	
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 (°)	$2\Theta_{1/2}$	130	130	130	130	130	I_F = 20mA

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TYPICAL PERFORMANCE CURVES

Fig. 1 Forward Current vs. Forward Voltage

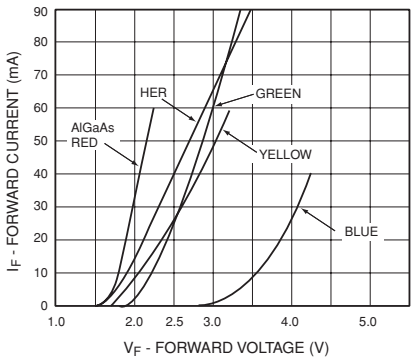


Fig. 2 Relative Luminous Intensity vs. DC Forward Current

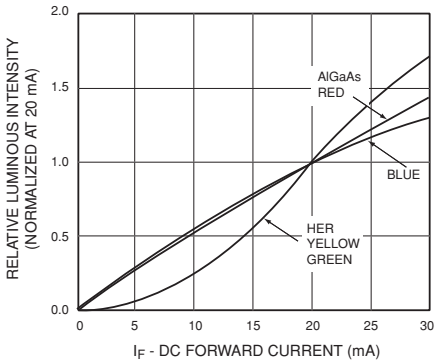


Fig. 3 Relative Intensity vs. Peak Wavelength

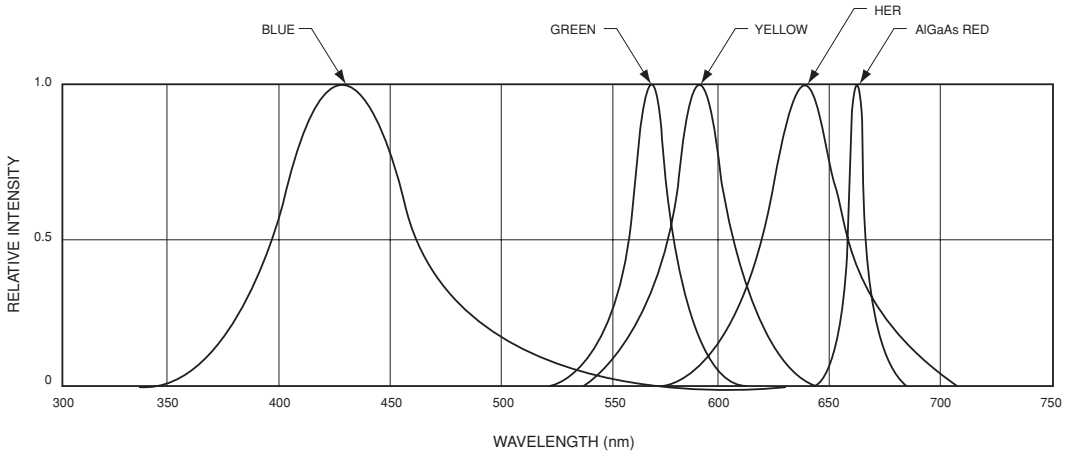


Fig.4 Radiation Diagram

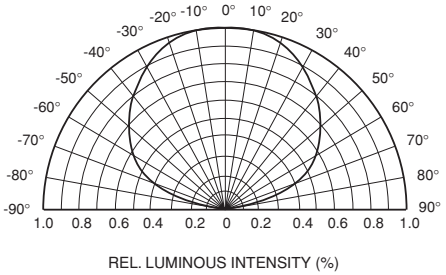
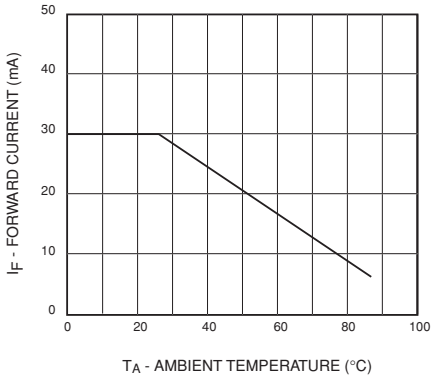


Fig.5 Maximum Forward Current vs. Ambient Temperature

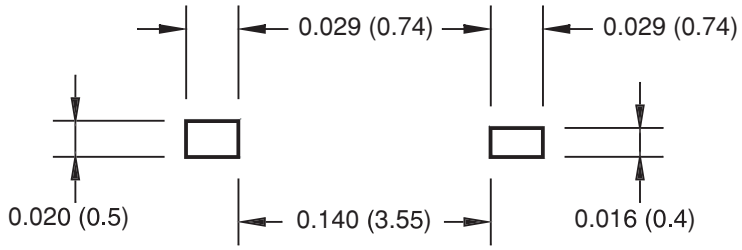


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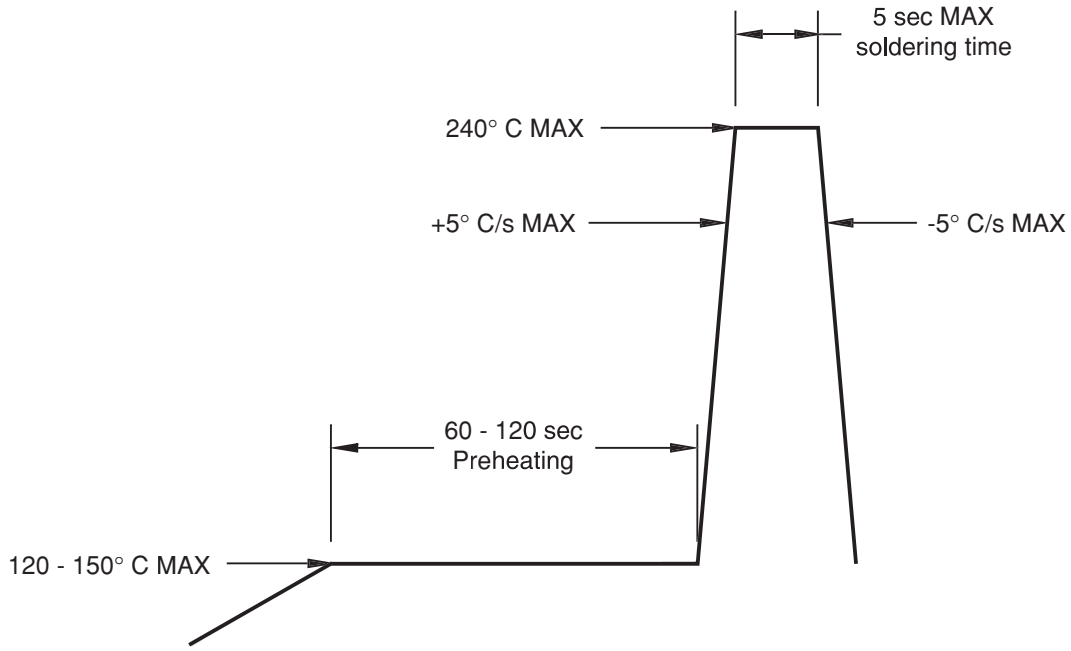
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RECOMMENDED PRINTED CIRCUIT BOARD PATTERN



RECOMMENDED IR REFLOW SOLDERING PROFILE

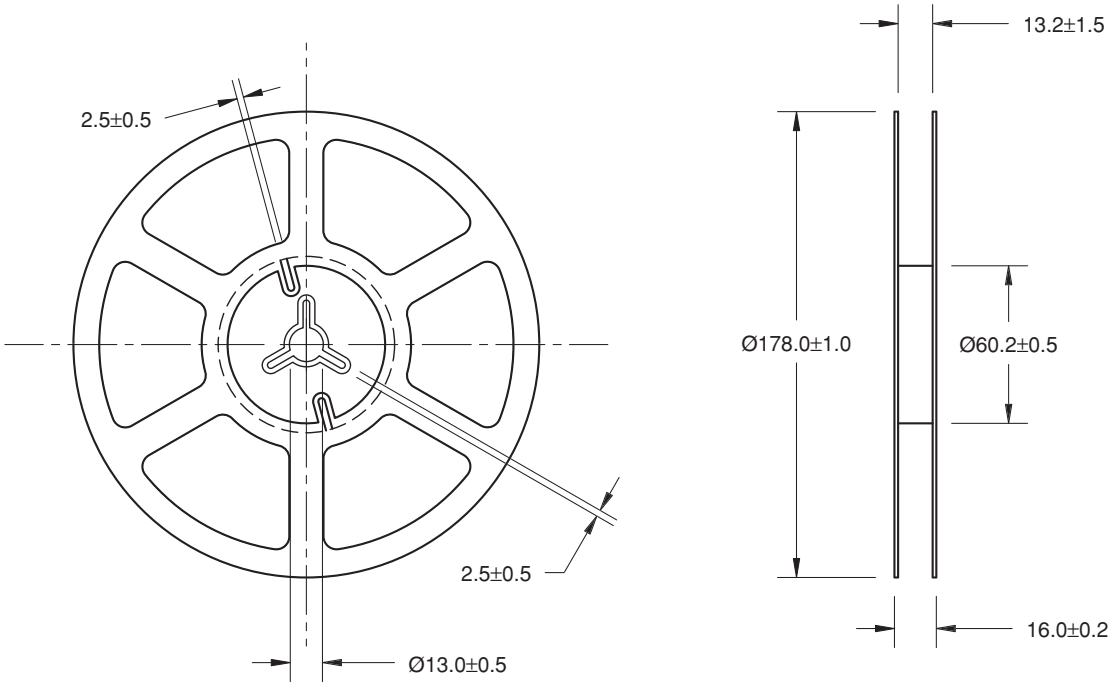


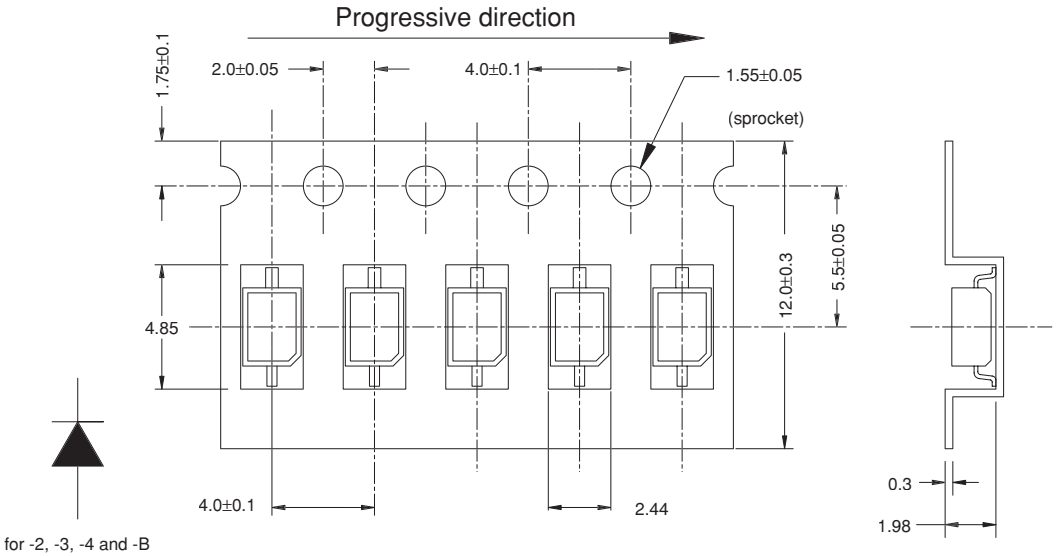
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TAPE AND REEL DIMENSIONS





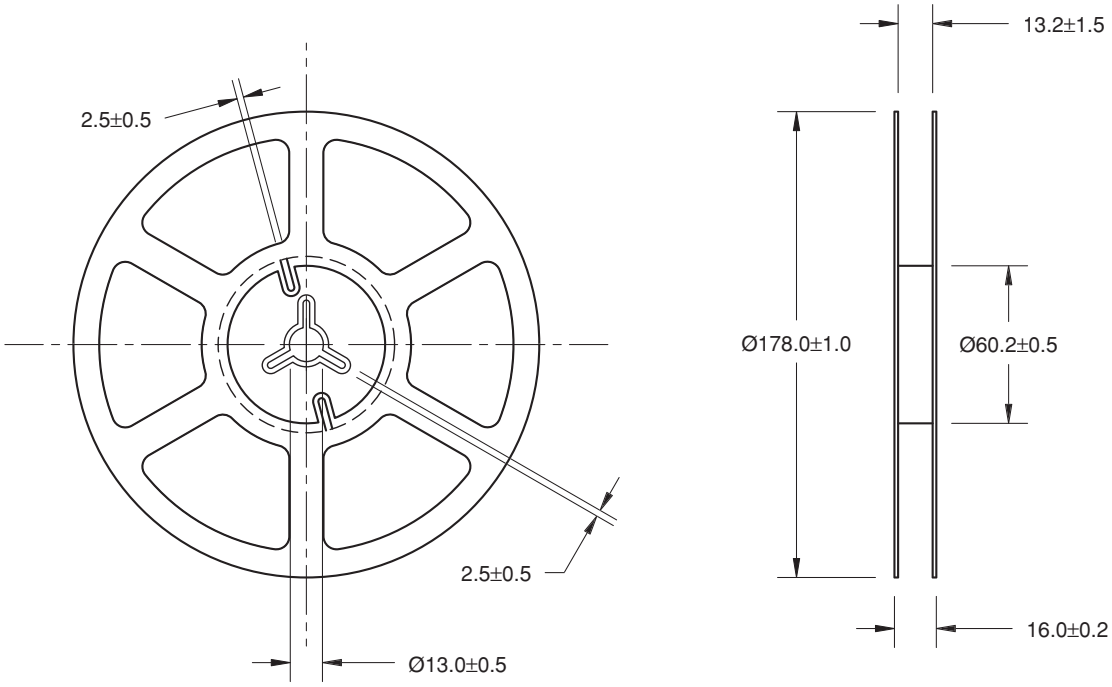
Dimensional tolerance is ± 0.1mm unless otherwise specified
Angle: ± 0.5
Unit: mm
Polarity marks are on the opposite sprocket side.

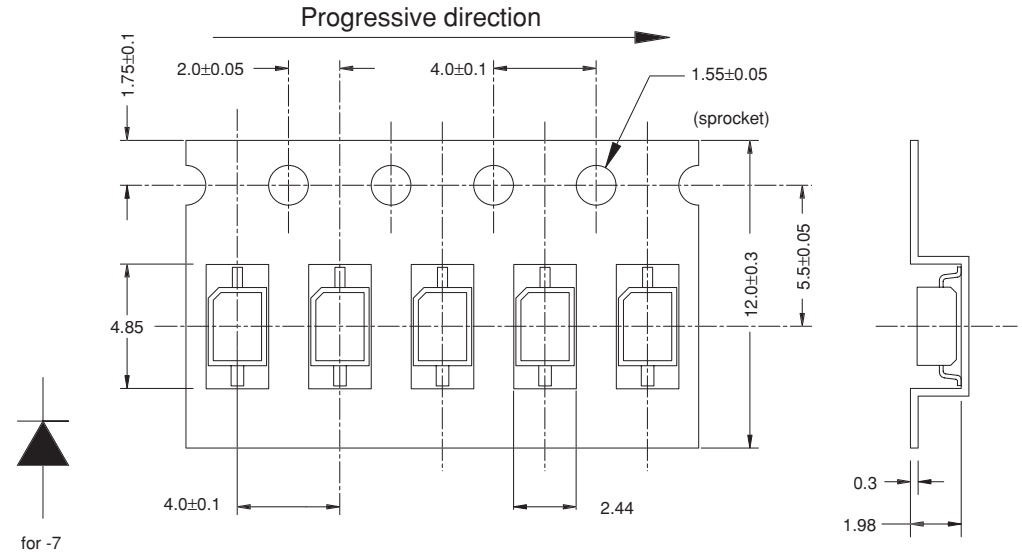
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Angle: ± 0.5
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QTLP680C-7 AlGaAs Red | **QTLP680C-B** Blue

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