

SURFACE MOUNT LED LAMP

STANDARD BRIGHT 1206 (Inner Lens)

QTLP651C-2 HER

QTLP651C-3 Yellow

QTLP651C-4 Green

QTLP651C-7 AlGaAs Red

QTLP651C-B Blue

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

Parameter	Symbol	QTLP651C					Units
		-2	-3	-4	-7	-B	
Continuous Forward Current	I_F	30	30	30	30	30	mA
Peak Forward Current ($f = 1.0\text{ KHz}$, Duty Factor = 1/10)	I_{FM}	160	160	160	180	100	mA
Reverse Voltage ($I_R = 10\text{ }\mu\text{A}$)	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					$^\circ\text{C}$
Storage Temperature	T_{STG}	-40 to +90					$^\circ\text{C}$
Lead Soldering Time	T_{SOL}	260 for 5 sec					$^\circ\text{C}$

ELECTRICAL / OPTICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$)

Part Number	Symbol	QTLP651C					Condition
		-2	-3	-4	-7	-B	
Luminous Intensity (mcd)	I_V	9	10	20	30	25	$I_F = 10\text{ mA}$
Minimum		15	18	35	50	35	
Typical	V_F	2.8	2.8	2.8	2.4	4.5	$I_F = 10\text{ mA}$
Forward Voltage (V)		2.0	2.0	2.1	1.9	3.8	
Maximum	I_P	635	585	565	660	430	$I_F = 10\text{ mA}$
Typical		630	590	570	645	465	
Wavelength (nm)	I_D	45	35	30	20	65	$I_F = 10\text{ mA}$
Peak	DI	20	20	20	20	20	$I_F = 10\text{ mA}$
Dominant							
Spectral Line Half Width (nm)							
Viewing Angle ($^\circ$)	2U1/2						

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TYPICAL PERFORMANCE CURVES

Fig. 1 Forward Current vs. Forward Voltage

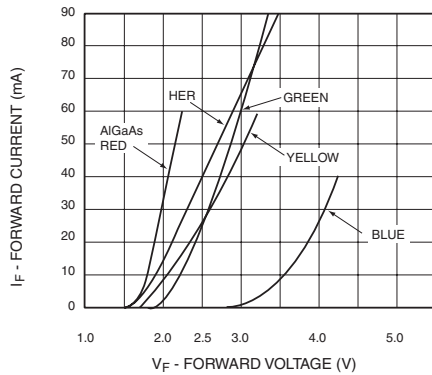


Fig. 2 Relative Luminous Intensity vs. DC Forward Current

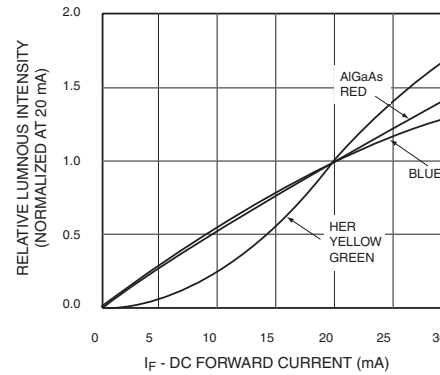


Fig. 3 Relative Intensity vs. Peak Wavelength

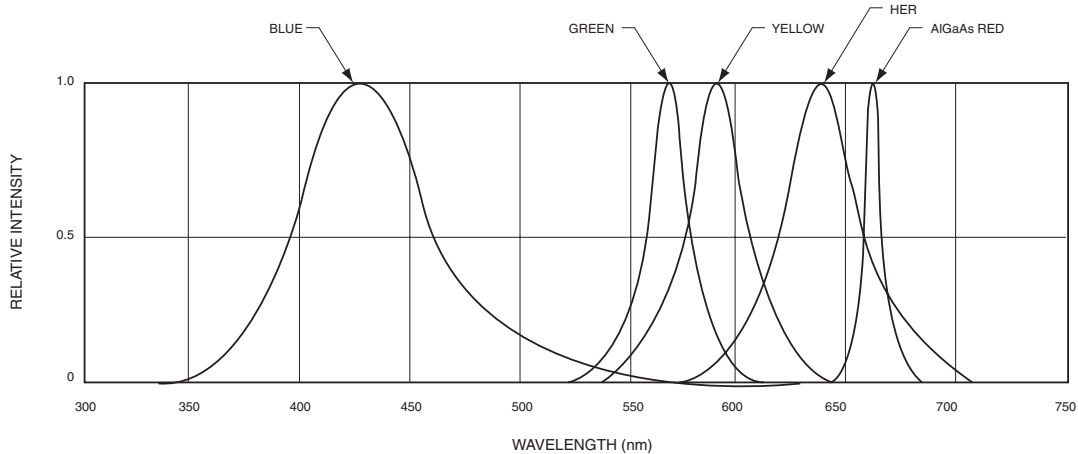


Fig. 4 Radiation Diagram

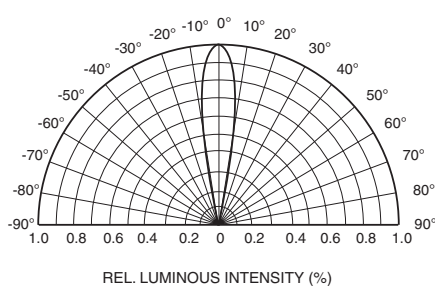
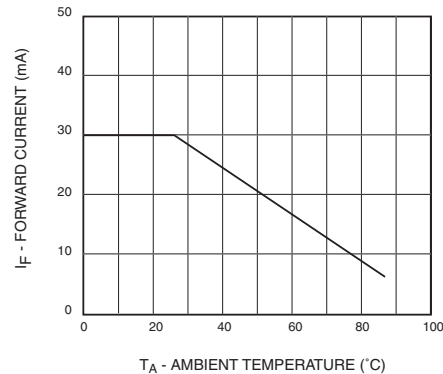


Fig. 5 Maximum Forward Current vs. Ambient Temperature



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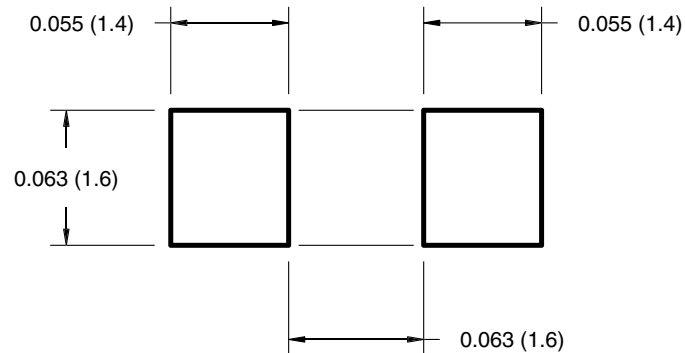
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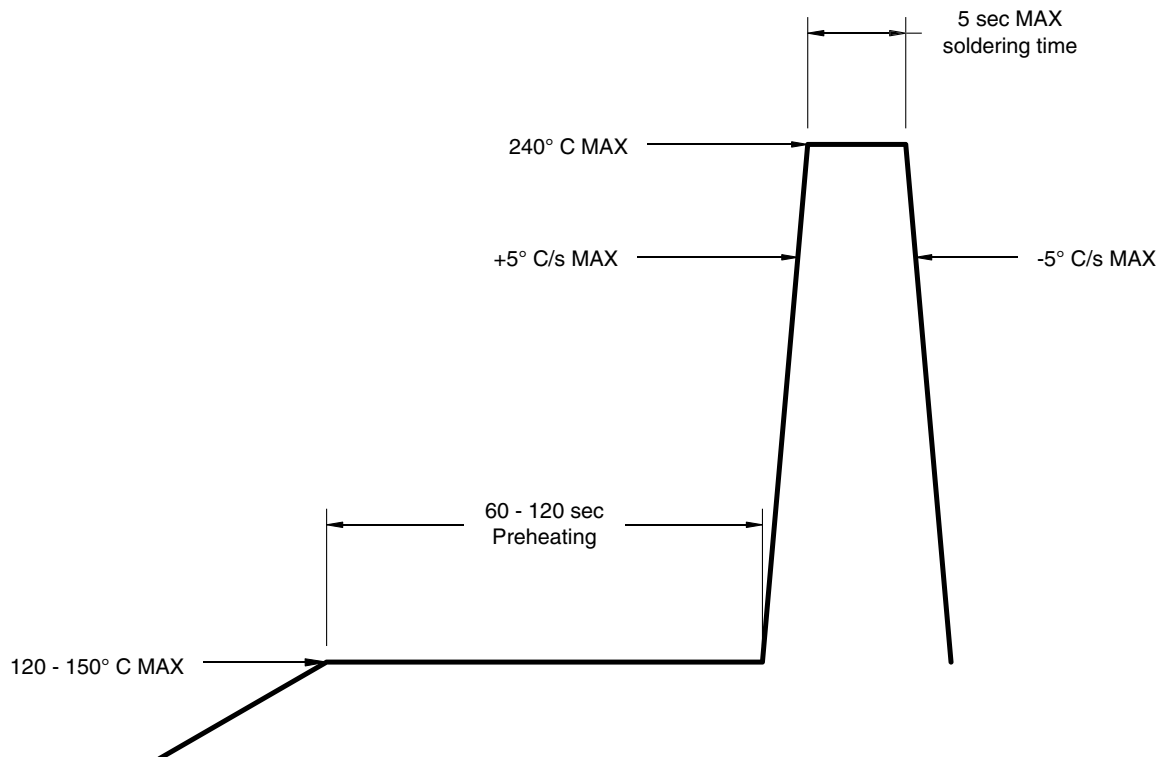
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RECOMMENDED PRINTED CIRCUIT BOARD PATTERN



RECOMMENDED IR REFLOW SOLDERING PROFILE



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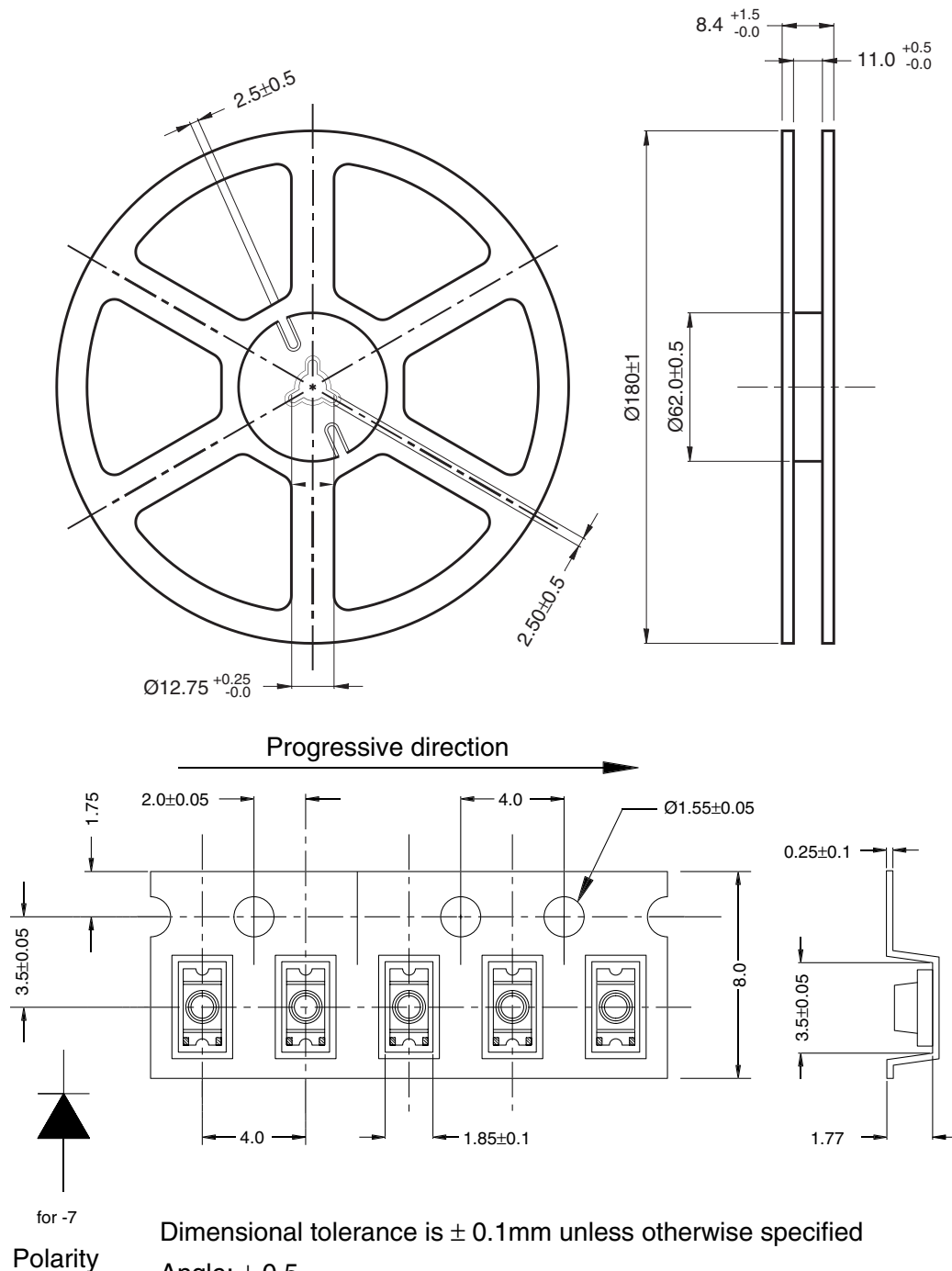
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TAPE AND REEL DIMENSIONS



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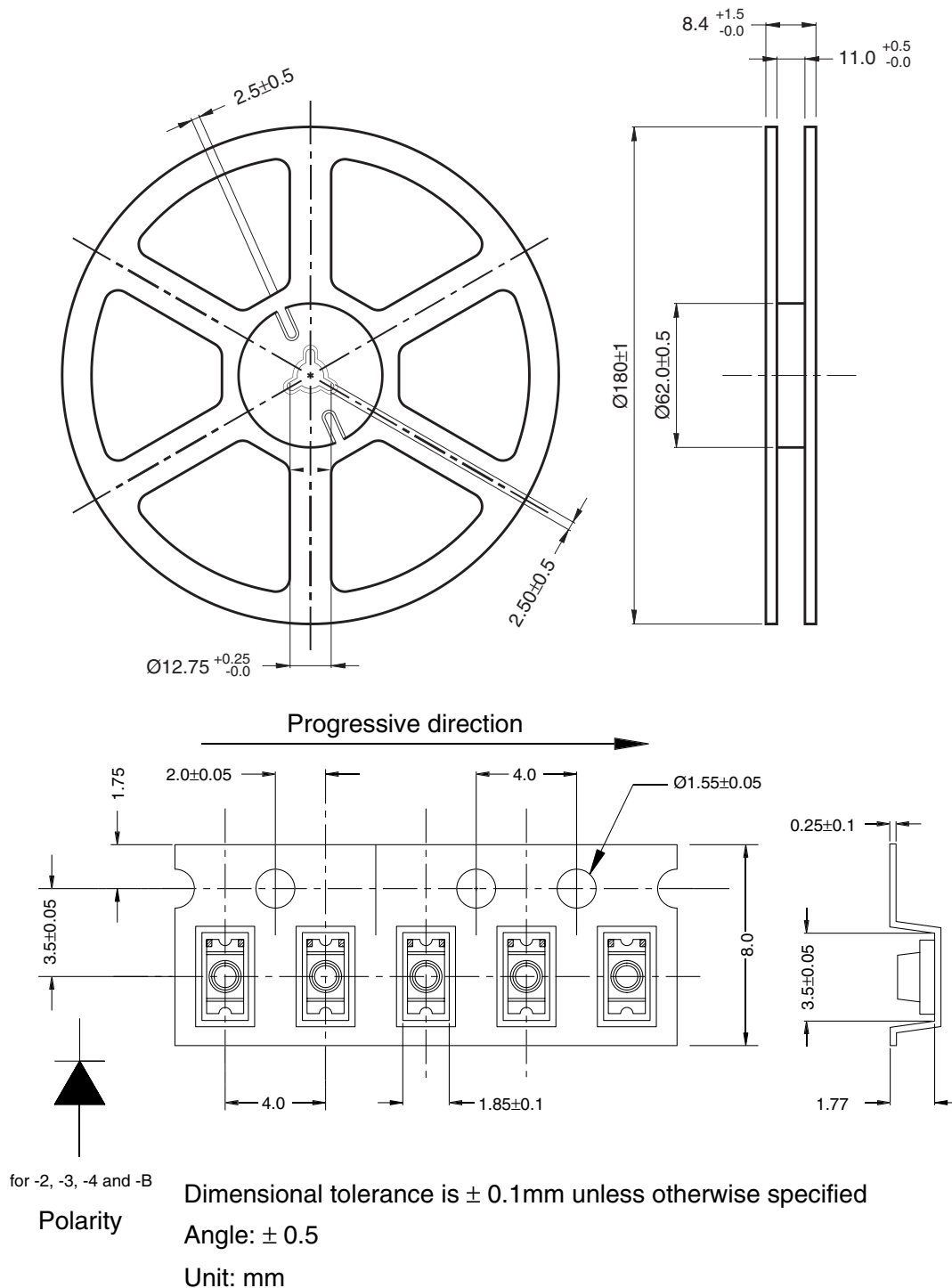
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