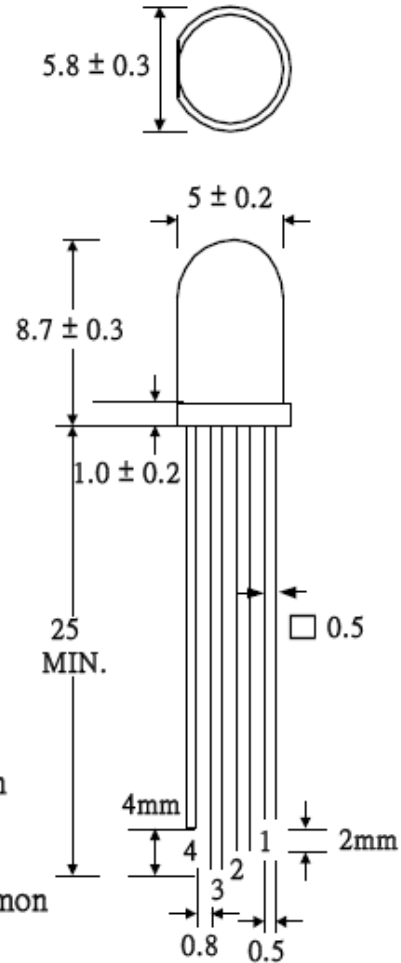


SPECIFICATION
CLT50R2GT2B2CCA
PACKAGE OUTLINES
Description

- *Round Type Tri Color
- *T1-3/4 (5mm) Diameter
- *Lens Color: Water Clear
- *With Flange

Features

- *Emitting Color: R/G/B
- *High Luminous Intensity
- *Technology: InGaAlP/InGaN/InGaN
- *Peak Wavelength = 630/525/468nm



1. Green
2. Blue
3. Red
4. Common Anode

Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is $\pm 0.25\text{mm}$ (0.01") unless otherwise noted.
3. Specifications are subject to change without notice.

Part Number	Chip Material	Color of Emission	Lens Type	Viewing Angle
CLT50R2GT2B2CCA	InGaAlP	Red	Water Clear	45°
	InGaN	Green		
	InGaN	Blue		



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ABSOLUTE MAXIMUM RATINGS
(TA=25°C)

Parameter	Symbol	Max Rating			Unit
		Red	Green	Blue	
Forward Current	I _F	50	30		mA
Reverse Current @ 5V	I _R	10	50		μA
Power Dissipation	P _d	120			mW
Operating Temperature Range	T _{OP}	-20~+85			°C
Storage Temperature Range	T _{STG}	-20~+85			°C
Peak Pulsing Current (1/10 duty f = 10KHz)	I _{FP}	100			mA
Soldering Temperature	T _{SOL}	Max 260°C for 5 sec Max			

OPTICAL-ELECTRICAL CHARACTERISTICS
(TA=25°C)

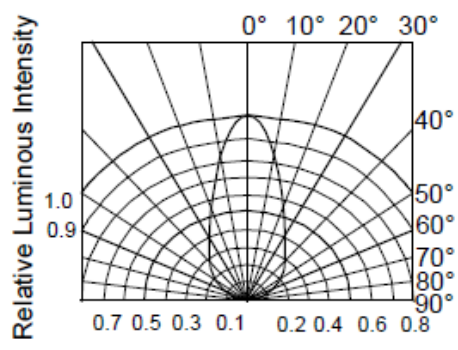
Parameter	Symbol	Test Condition	Color	Value			Unit
				Min	Typ	Max	
Luminous Intensity	I _v	I _F = 20mA	R	560	840	-	mcd
			G	1000	1500		
			B	200	300		
Forward Voltage	V _F	I _F = 20mA	R	-	2.3	2.4	V
			G	-	3.2	3.8	
			B	-	3.2	3.8	
Viewing Angle at 50% I _v	2θ _{1/2}	I _F = 20mA	-	-	45	-	Deg
Dominant Wavelength	λ _P	I _F = 20mA	R	-	625	-	nm
			G		520		
			B		470		

*Tolerance of viewing angle: -10 / +5 deg.

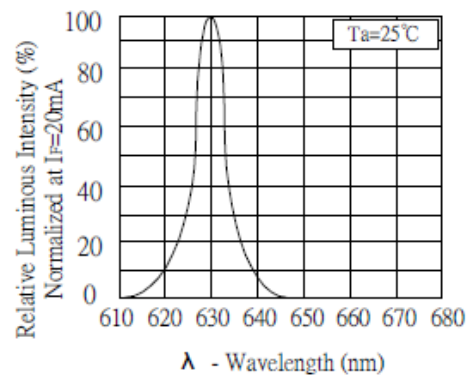

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OPTICAL CHARACTERISTIC CURVES - RED

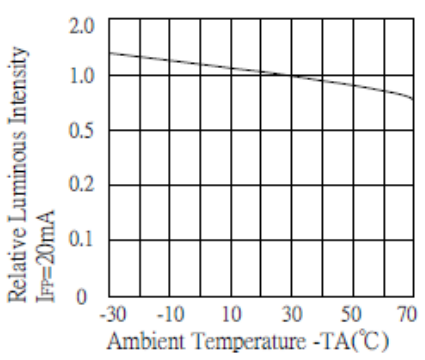
(RED)



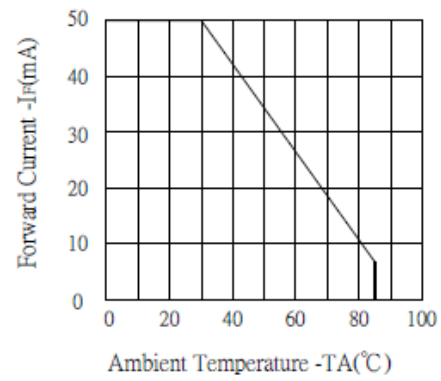
RADIATION DIAGRAM



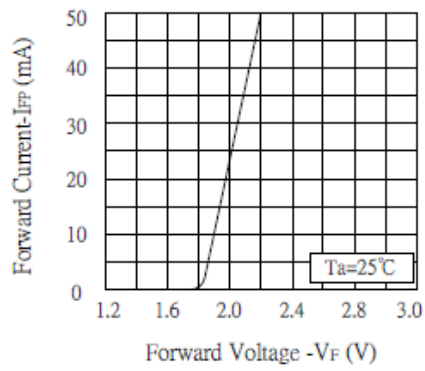
RELATIVE LUMINOUS INTENSITY Vs. WAVELENGTH



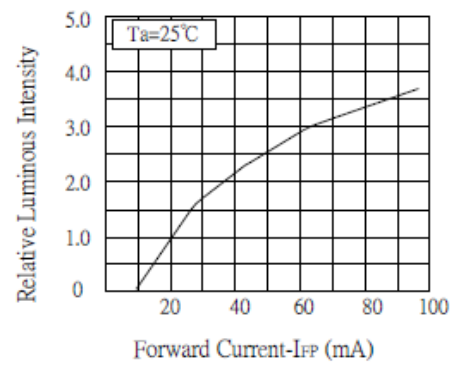
LUMINOUS INTENSITY Vs. AMBIENT TEMPERATURE



MAX FORWARD CURRENT Vs. AMBIENT TEMPERATURE



FORWARD CURRENT Vs. FORWARD VOLTAGE



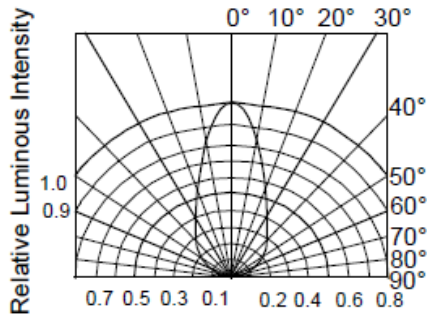
LUMINOUS INTENSITY Vs. FORWARD CURRENT



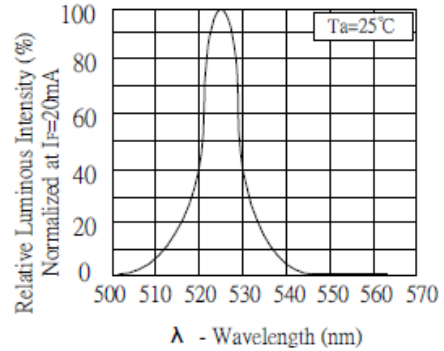
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OPTICAL CHARACTERISTIC CURVES - GREEN

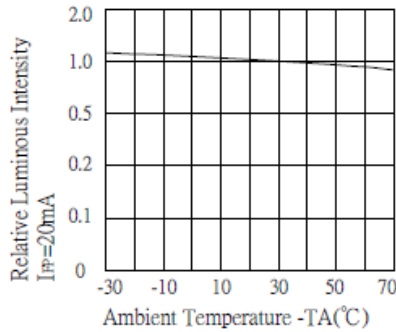
(Green)



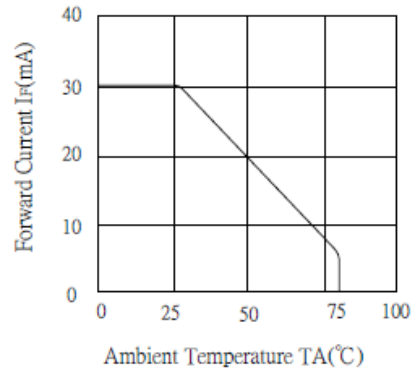
RADIATION DIAGRAM



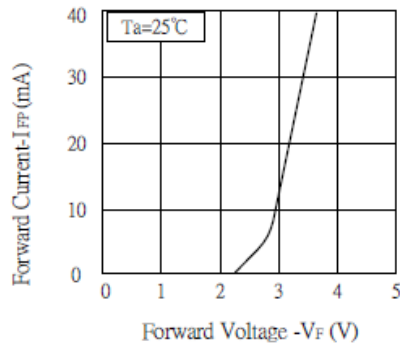
RELATIVE LUMINOUS INTENSITY Vs. WAVELENGTH



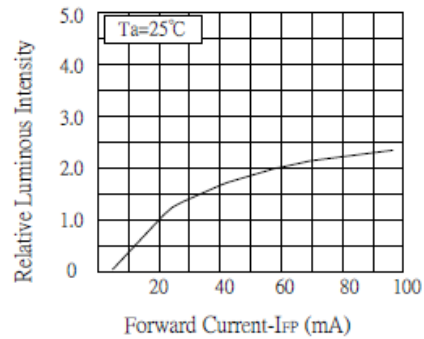
LUMINOUS INTENSITY Vs. AMBIENT TEMPERATURE



MAX FORWARD CURRENT Vs. AMBIENT TEMPERATURE



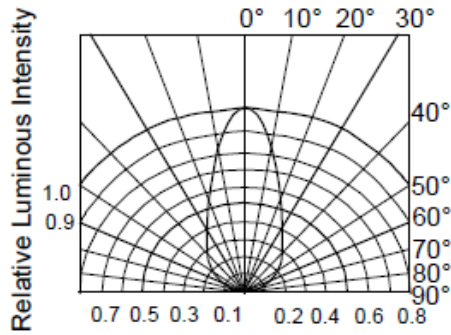
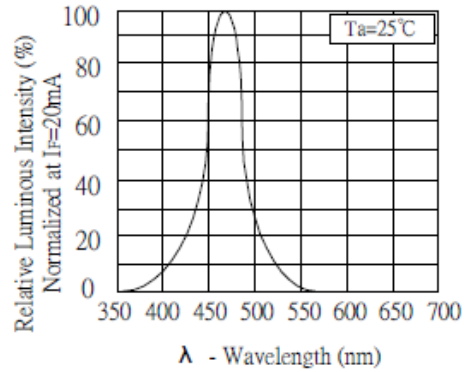
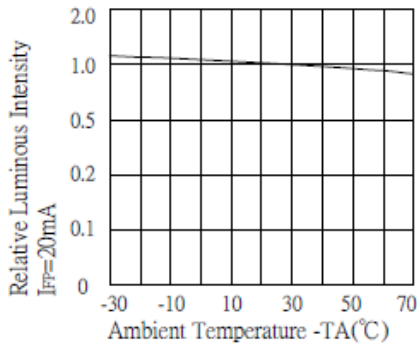
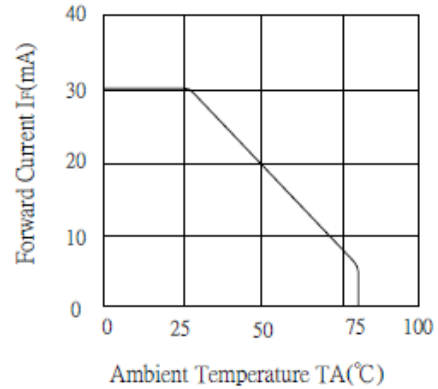
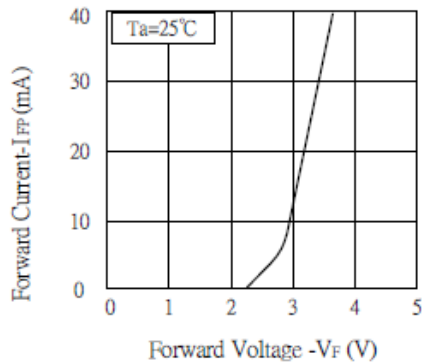
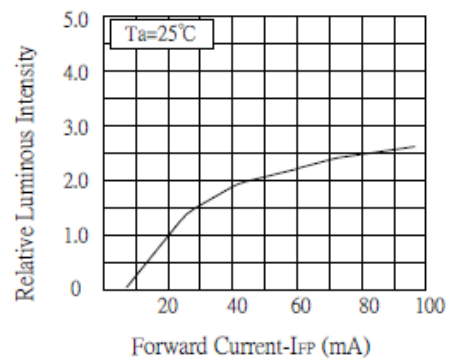
FORWARD CURRENT Vs. FORWARD VOLTAGE



LUMINOUS INTENSITY Vs. FORWARD CURRENT



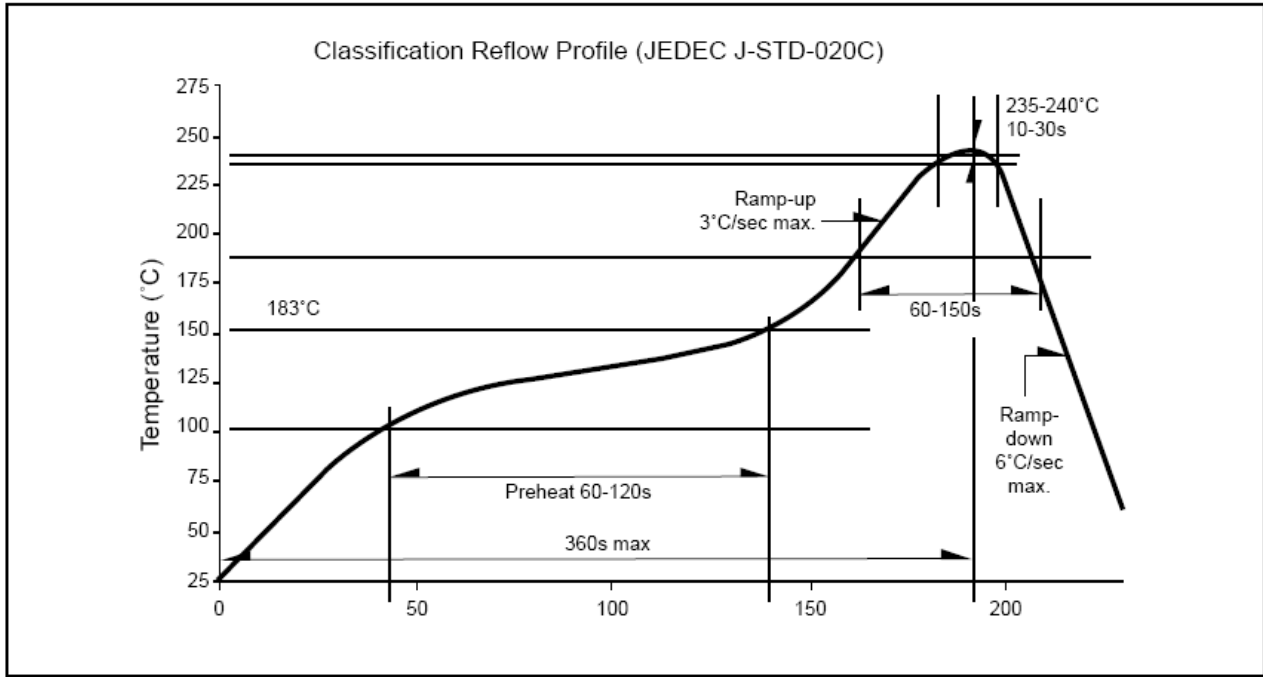
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OPTICAL CHARACTERISTIC CURVES - BLUE
(Blue)

RADIATION DIAGRAM

RELATIVE LUMINOUS INTENSITY Vs. WAVELENGTH

LUMINOUS INTENSITY Vs. AMBIENT TEMPERATURE

MAX FORWARD CURRENT Vs. AMBIENT TEMPERATURE

FORWARD CURRENT Vs. FORWARD VOLTAGE

LUMINOUS INTENSITY Vs. FORWARD CURRENT

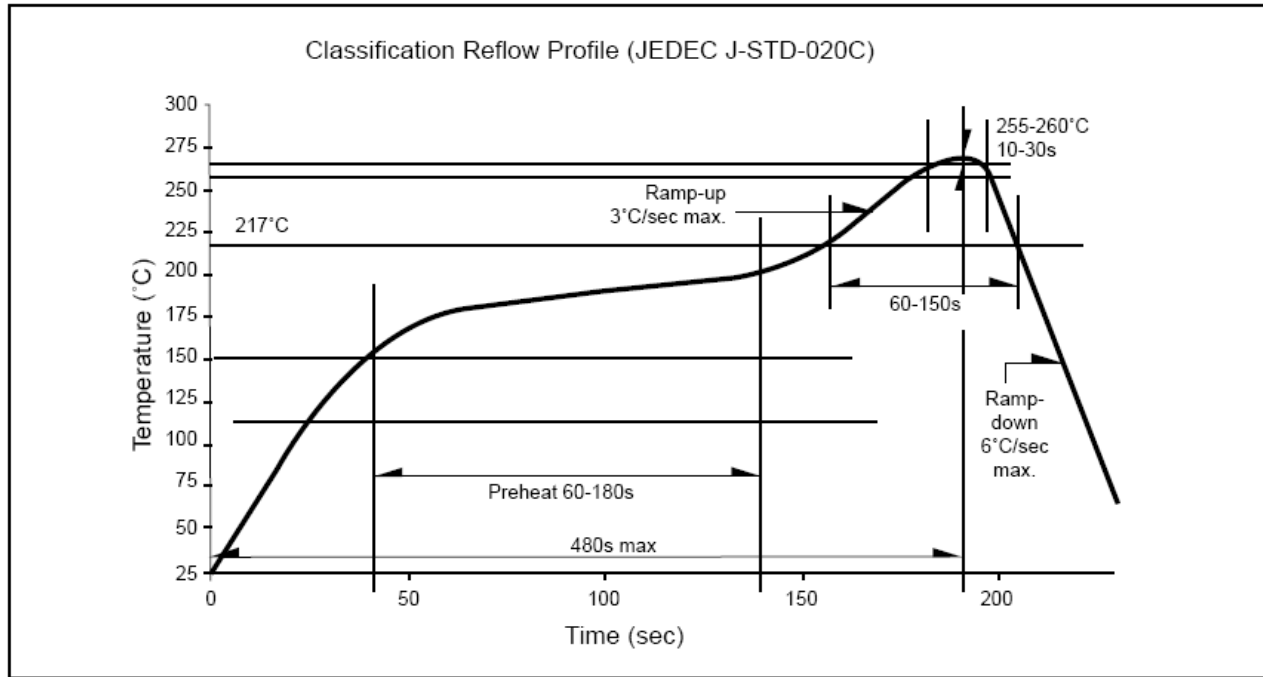

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SOLDERING CONDITIONS

RECOMMENDED Sn-PB IR-Reflow Soldering Profile



RECOMMENDED Pb-Free Soldering Profile



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