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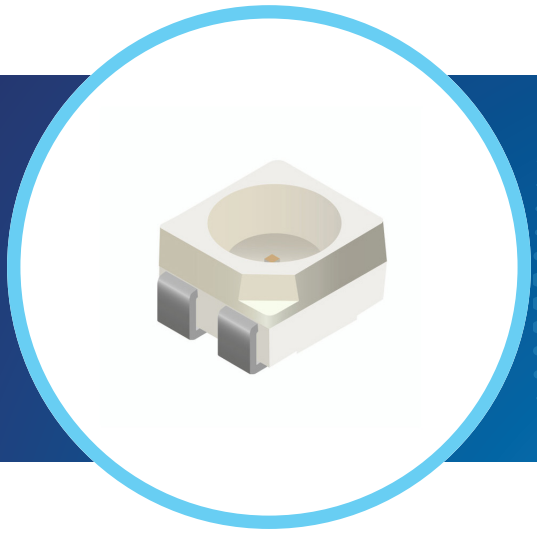


599 SERIES

RGB SMD LED

3528 PLCC-4

MECHANICAL / SPECIFICATIONS

PART NUMBER: 599-0B11-337F

DIMENSIONS: 3.5 x 2.7 x 1.9mm

LENS COLOR: Water Clear

LENS MATERIAL: Silicon

STANDARD PACKAGING: 2000 pcs/reel

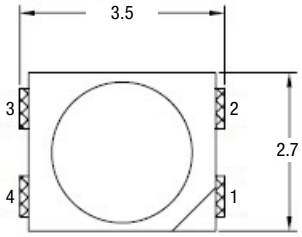
MOISTURE SENSITIVITY LEVEL: 3

CERTIFICATIONS & RATINGS

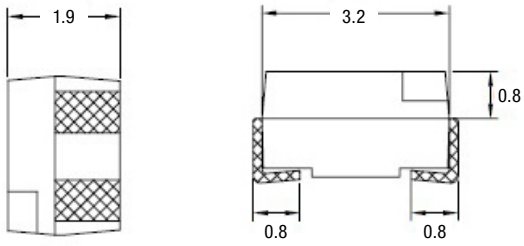
RoHS Compliant

DIMENSIONS inches [mm]

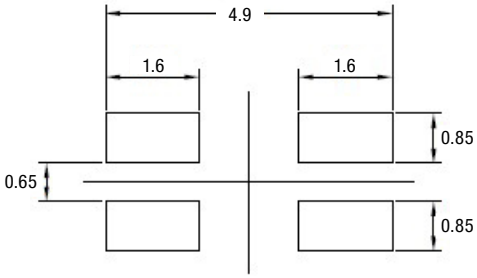
TOP VIEW



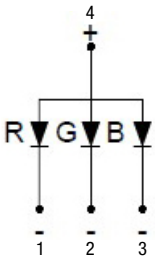
SIDE VIEW



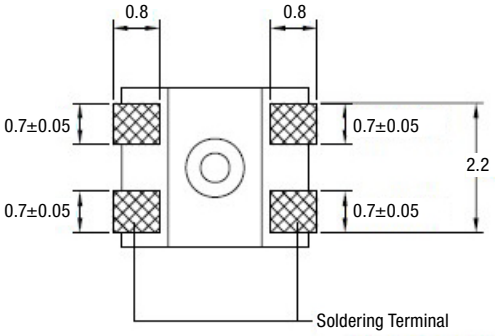
RECOMMENDED PAD LAYOUT



LED SCHEMATIC



BOTTOM VIEW



ABSOLUTE MAXIMUM RATINGS AT Ta=25°C

Symbol	Parameter	Ratings			Units
		R	G	B	
I_F	Forward Current	50	30	30	mA
I_{FP}	Peak Forward Current	130	100	100	mA
P_D	Power Dissipation	120	108	108	mW
Ir	Reverse Current @5V	10	50	50	μA
E_{SD}	Electrostatic Discharge	2000	500	500	V
T_{OPR}	Operating Temperature	-40~+85			°C
T_{STG}	Storage Temperature	-40~+100			°C

TYPICAL ELECTRICAL & OPTICAL CHARACTERISTICS (Ta=25°C)

Items	Symbol		Min.	Typ.	Max.	Unit	Condition
Luminous Intensity	Iv	R	80	125	320	mcd	IF=20mA
		G	500	800	2000		
		B	125	320	500		
Dominant Wavelength	λD	R	-	630	-	nm	IF=20mA
		G	-	525	-		
		B	-	470	-		
Spectral Line Half-Width	Δλ	R	-	20	-	nm	IF=20mA
		G	-	36	-		
		B	-	30	-		
Forward Voltage	V_F	R	1.5	-	2.4	V	IF=20mA
		G	2.8	-	3.6		
		B	2.8	-	3.6		
Viewing Angle	2θ½	R	-	120	-	deg	IF=20mA
		G	-	120	-		
		B	-	120	-		

Note:
1. The forward voltage data did not including ±0.1V testing tolerance.
2. The luminous intensity data did not including ±15% testing tolerance.
3. The color coordinates measurement allowance is ±0.01 testing tolerance.

TYPICAL ELECTRO-OPTICAL CHARACTERISTICS CURVE

R CHIP

Fig.1 Forward current vs. Forward Voltage

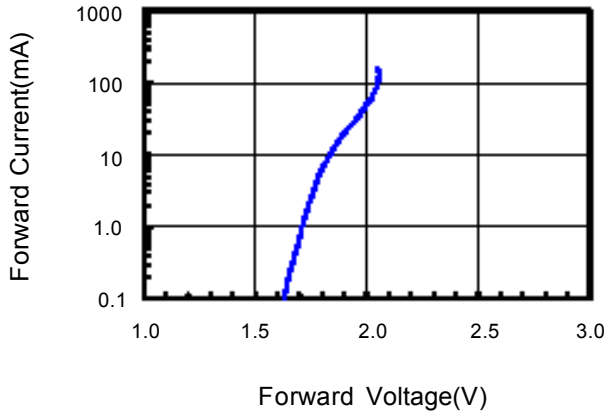


Fig.2 Relative Intensity vs. Forward Current

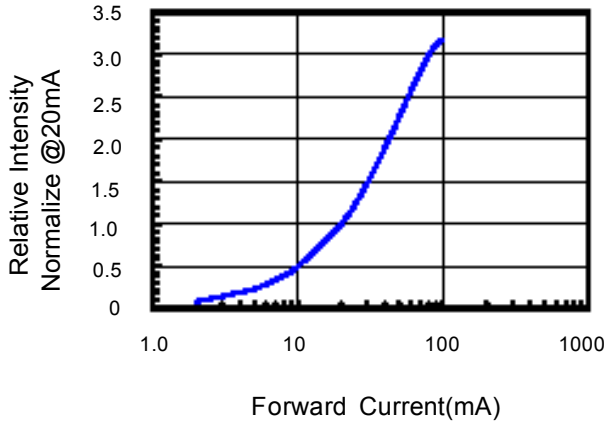


Fig.3 Forward Voltage vs. Temperature

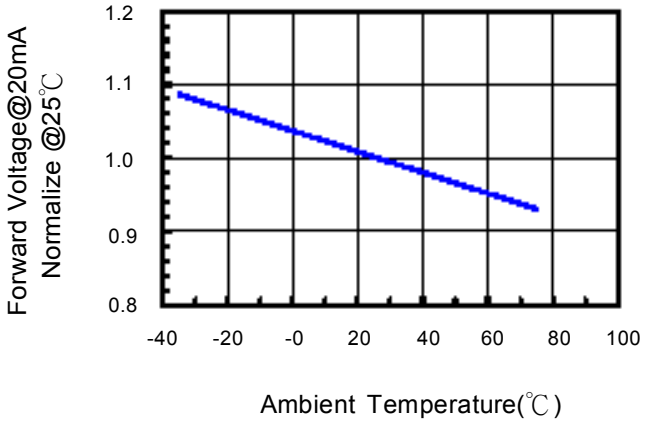


Fig.4 Relative Intensity vs. Temperature

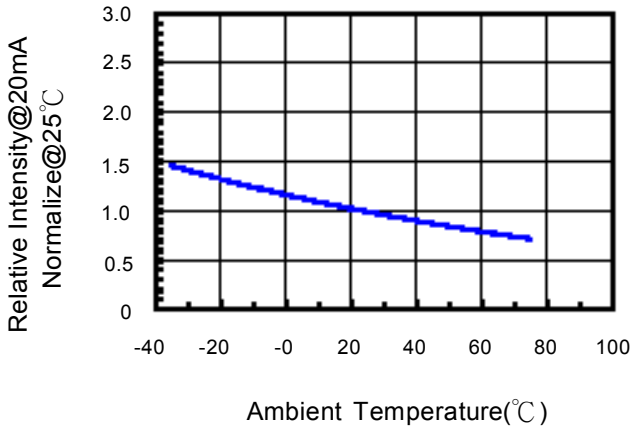


Fig.5 Relative Intensity vs. Wavelength

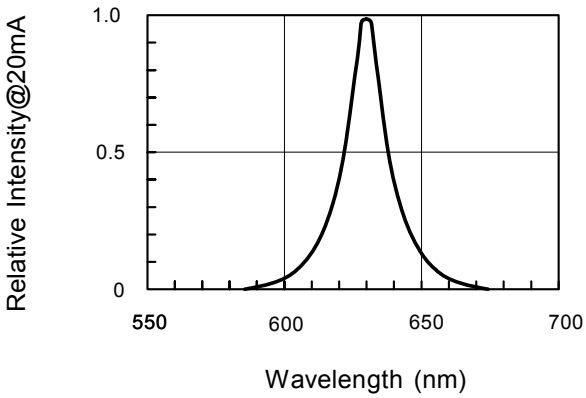
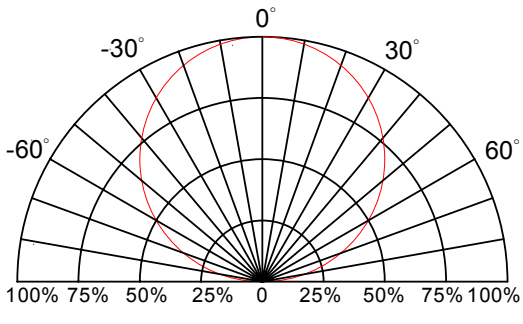


Fig.6 Directive Radiation



TYPICAL ELECTRO-OPTICAL CHARACTERISTICS CURVE

G CHIP

Fig.1 Forward current vs. Forward Voltage

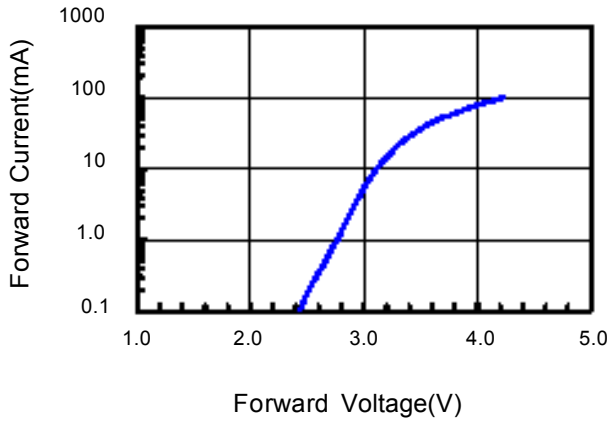


Fig.2 Relative Intensity vs. Forward Current

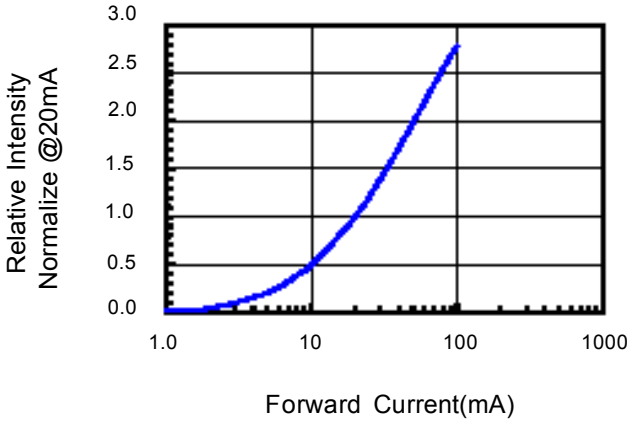


Fig.3 Forward Voltage vs. Temperature

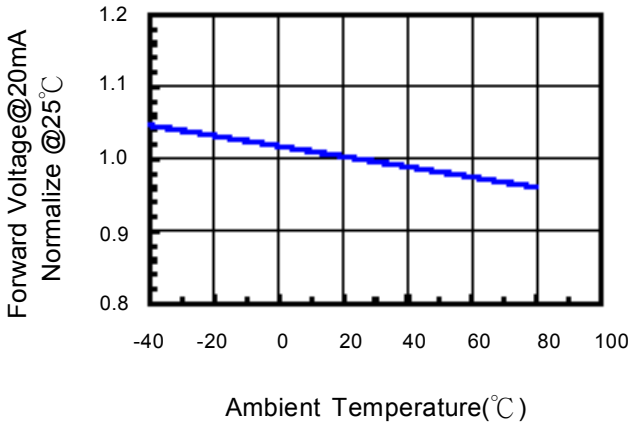


Fig.4 Relative Intensity vs. Temperature

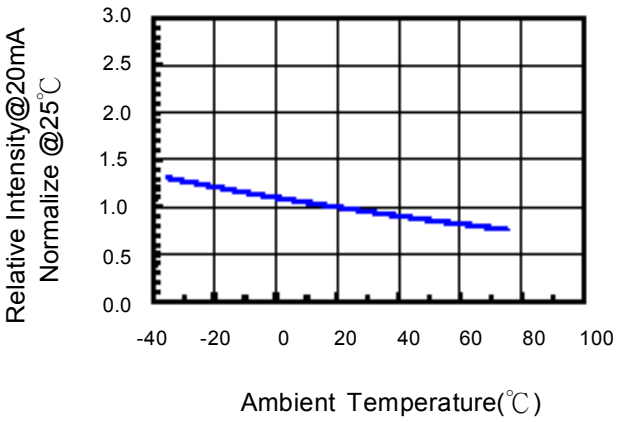


Fig.5 Relative Intensity vs. Wavelength

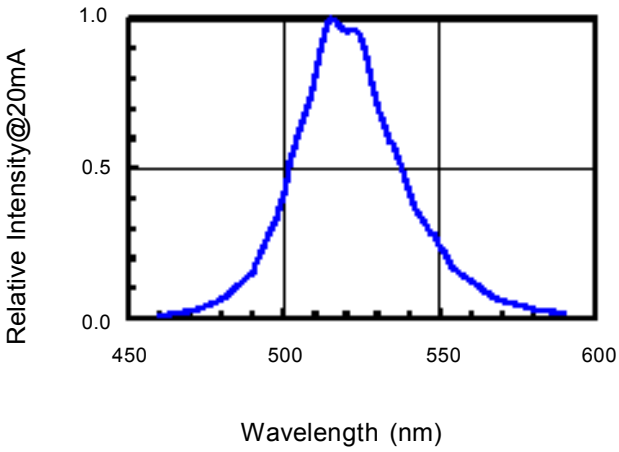
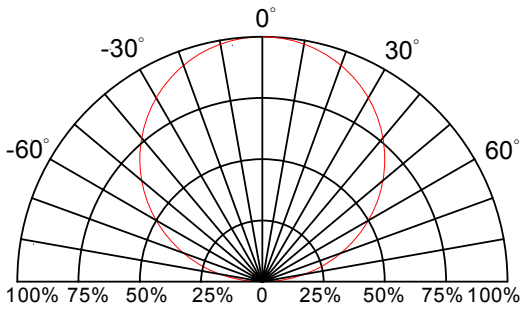


Fig.6 Directive Radiation



TYPICAL ELECTRO-OPTICAL CHARACTERISTICS CURVE

B CHIP

Fig.1 Forward current vs. Forward Voltage

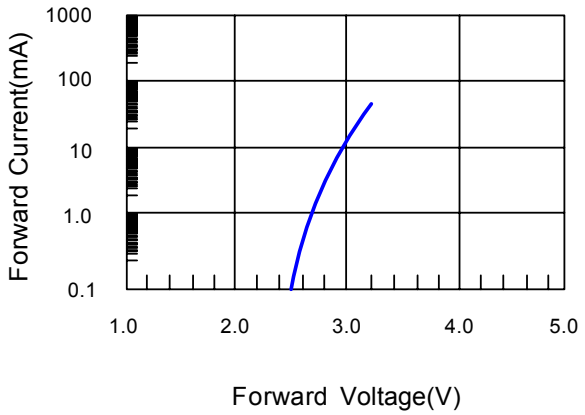


Fig.2 Relative Intensity vs. Forward Current

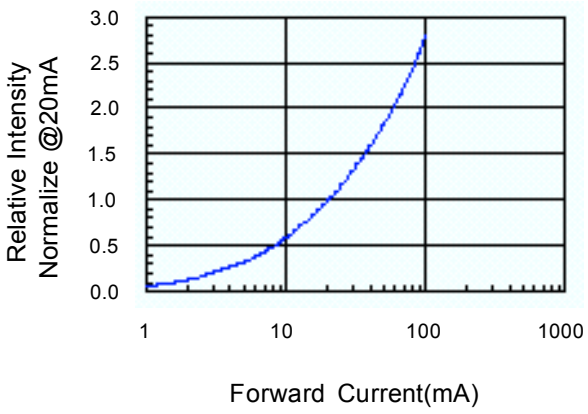


Fig.3 Forward Voltage vs. Temperature

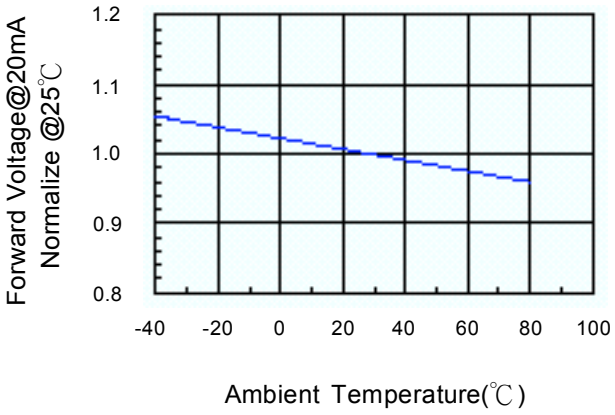


Fig.4 Relative Intensity vs. Temperature

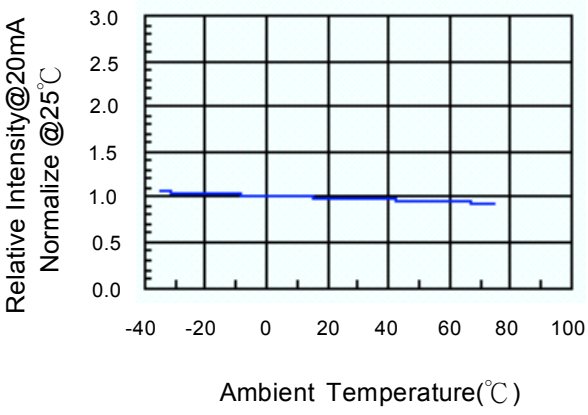


Fig.5 Relative Intensity vs. Wavelength

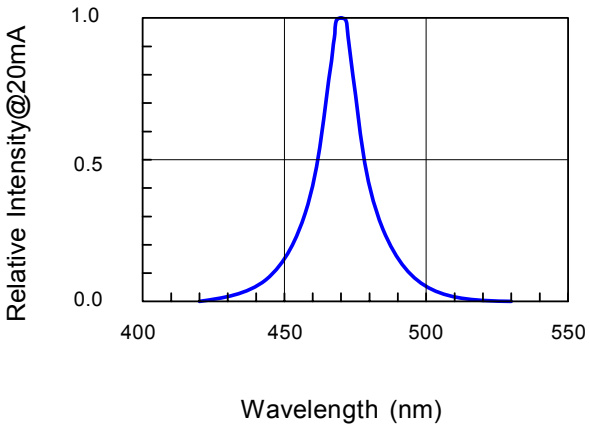
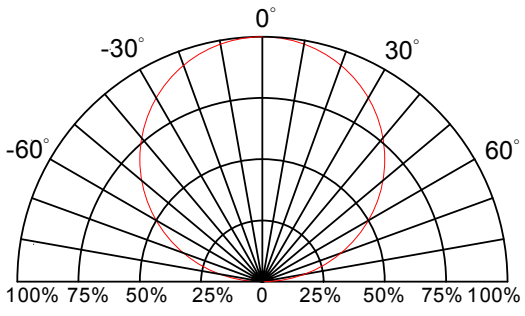
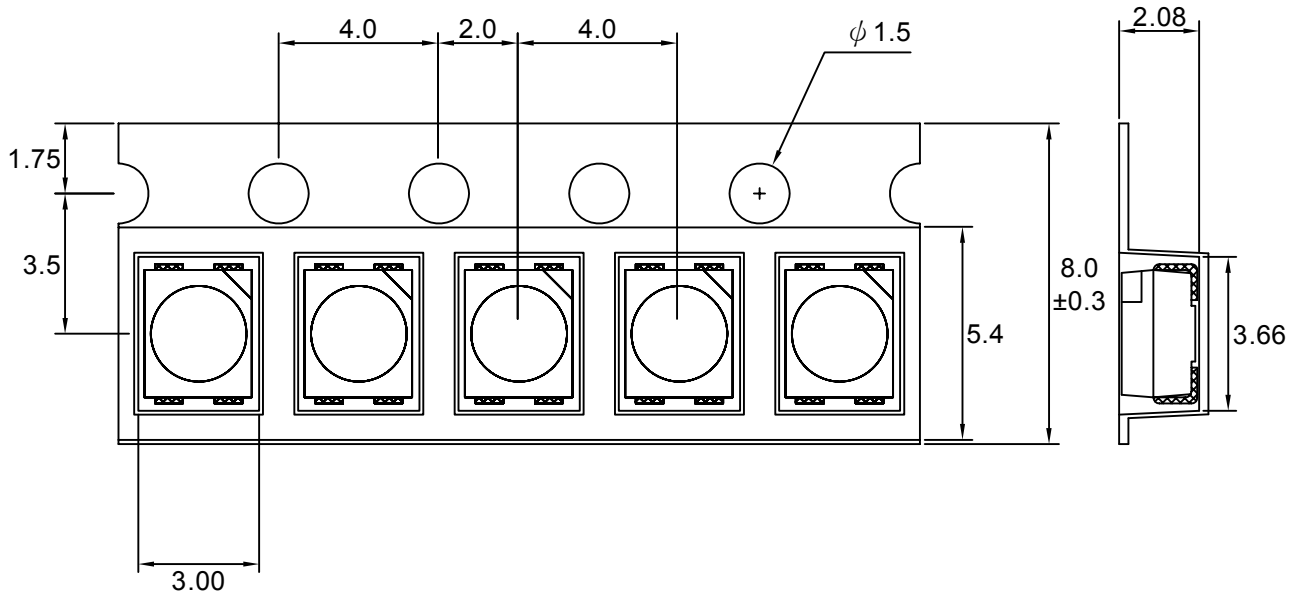


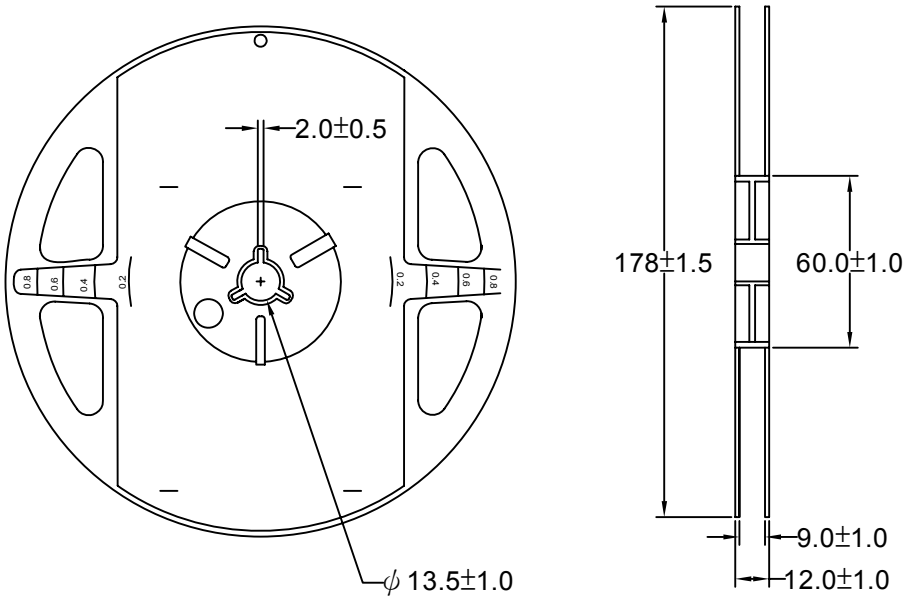
Fig.6 Directive Radiation



TAPE AND REEL SPECIFICATION



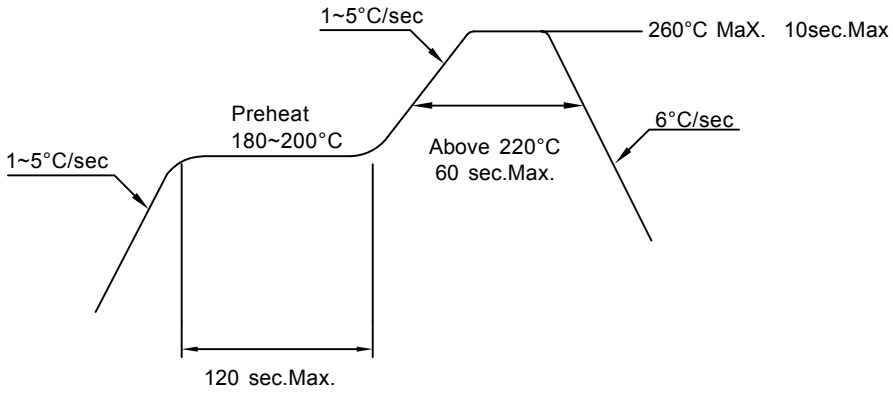
Note : The tolerances unless mentioned is ±0.1mm,Angle± 0.5. Unit=mm.



REFLOW SOLDERING

Recommended soldering conditions:

1. Hand Solder
   Basic spec is ≤ 320°C 3 sec. one time only
2. PB-Free Reflow Solder



Note:

1. Reflow soldering should not be done more than two times.
2. When soldering, do not put stress on the LEDs during heating.
3. After soldering, do not warp the circuit board.