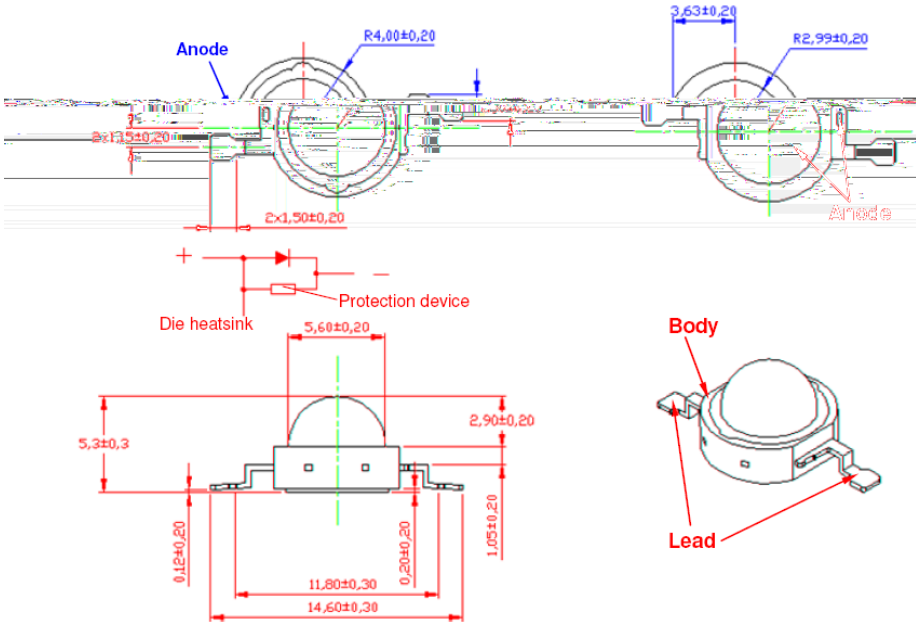
Datasheet no.47.1 POLYWA POWER LEDs KLHP331XE

KLHP331XE POLYWA Power LED EMITTER is an excellent high power LED for **Solid Sate Lighting** applications. This emitter (with Star MPCB option) with **silicone lens** technology provides the good life and can be **reflow soldered** at 260˚C.

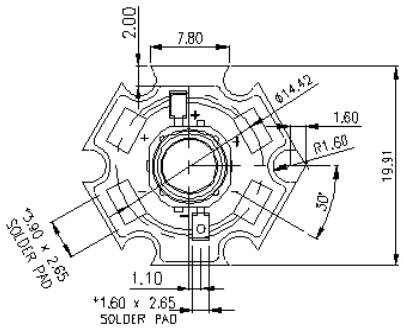
With special **phosphor** technology, warm white KLHP331WWE has very good color stability in high temperature. The typical CCT change is less than 50K when junction temperature achieves 100˚C.

KLHP331XE has special design to fit second optics. The user can easily get the uniform light with any secondary optics.

1. MECHANICAL DIMENSIONS



Star with MPCB



kwality
ISO 9001-2000

KWALITY PHOTONICS PRIVATE LIMITED

29,EC Kushaiguda, Hyderabad-50 062, INDIA. PH:91-040-27123555,27136252 092462 27946

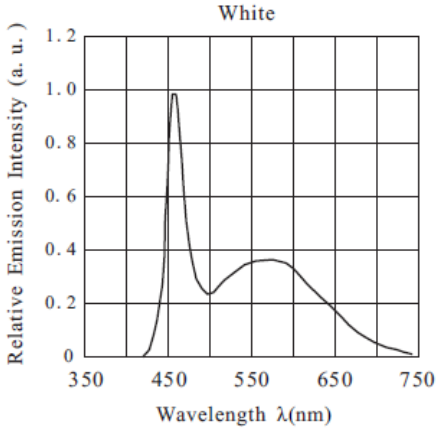
Email:, sales@kwalityindia.com **www.kwalityindia.com**

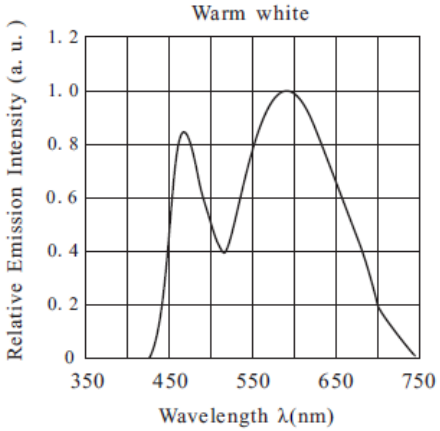
2. Absolute Ratings

Parameter	Rating
	White Series / Royal Blue / Blue / Green / Amber / Red
Typical DC Forward Current (mA)	350 mA
LED Junction Temperature	125℃
LED Operating Temperature	-40℃~110℃
Storage Temperature	-40℃~110℃
Soldering Temperature	Max. 260℃ / Max. 10sec. (JEDEC 020c)
ESD Sensitivity	2,000 V HBM (JESD-22A-114-B)
Reverse Voltage	Not design to be driven in reverse bias (VR≤5V)
Preconditioning	Acc. to JEDEC Level 2

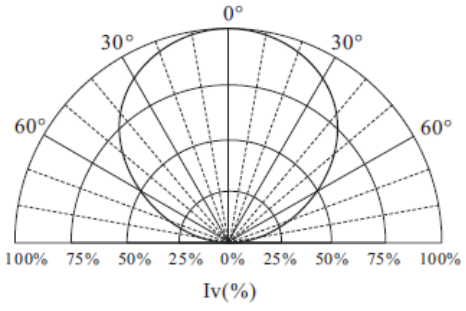
.TYPICAL INITIAL OPTICAL/ELECTRICAL CHARACTERISTICS

Spectrum （Ta=25℃ I_F=350mA）

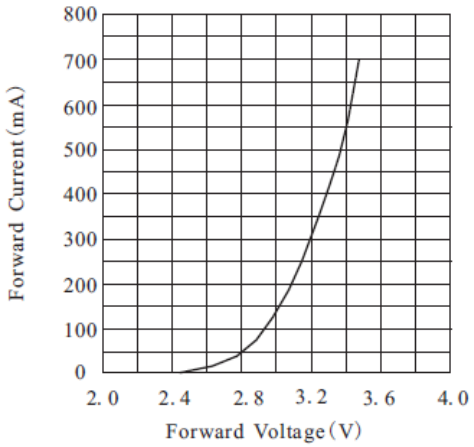




Directivity（Ta=25℃ I_F=350mA）



Forward Current & Forward Voltage (Ta=25℃)



3. General Characteristics

3.1 Luminous Flux and Forward Voltage at 350mA and 700mA

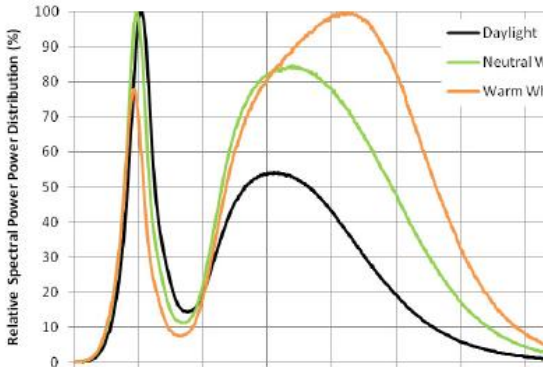
Part Number	colour	Luminous Flux(lm) Or Radiometric power *(mW) @350mA		Forward voltage Vf(v) @350mA	Typ. CRI	CCT/λp	$2\theta_{1/2}$
		Min lumen	Typ lumen				
KLHP331W	W	80	100-130	2.8-3.8	70	4750K-7000K	135
KLHP331NW	NW	70	80	2.8-3.8	75	3700K-4750K	130
KLHP331WW	WW	50	60	2.8-3.8	80	2600K-2700K	125
KLHP331R	Red	35	45	2.0-3.4	-	620-635	145
KLHP331A	Amber	35	45	2.0-3.4	-	580-600	145
KLHP331G	Green	45	60	2.8-3.8	-	520-535	150
KLHP331B	Blue	10	18	2.8-3.8	-	460-470	140

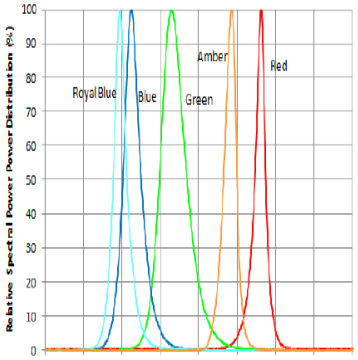
Temperature coefficient of Vf : -3 mV/˚C W,G,B,-2 mV/˚C Thermal Resistance Junction to LED case: 10˚C/W

Note:

1. Luminous flux is measured with an accuracy of ±10%
2. the CCT colour correlated color temperature is measured with an accuracy of ±200K
3. The peak/dominant wavelength is measured with an accuracy of ±1nm
4. The forward voltage is measured with an accuracy of ±0.1V

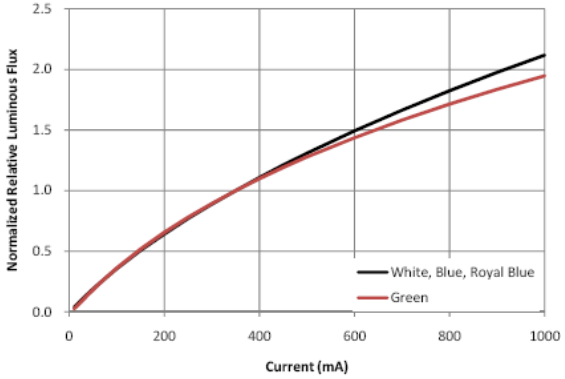
5. Spectral Characteristics of White LEDs & other Colors



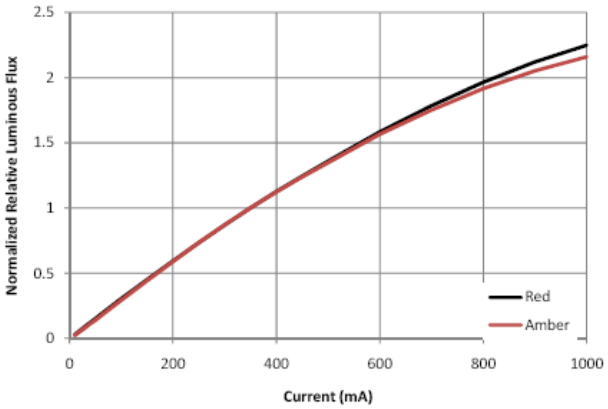


6.Typical Forward I-V Characteristics

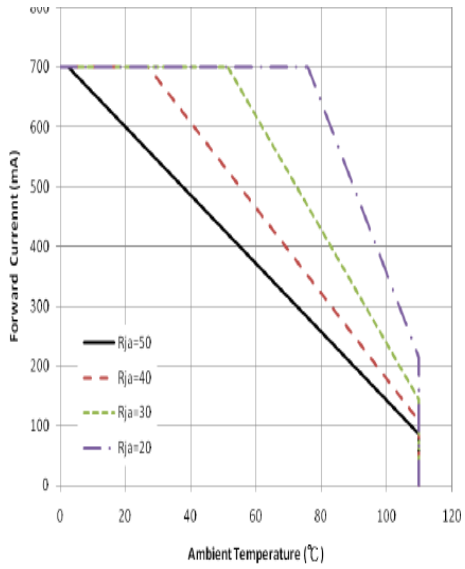
6.1 White Series/Green / Blue / Royal Blue



6.2 Amber / Red

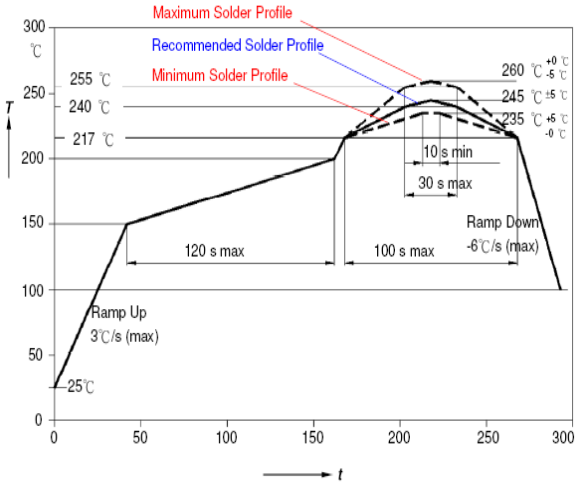


7. Current Derating Curve



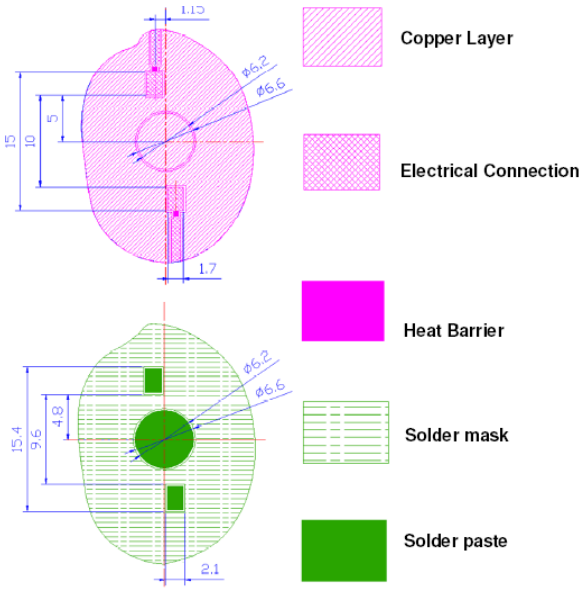
Note : R_{ja} is thermal resistance from LED junction to ambient

8. Recommended Soldering Profile



Failure Criteria: 1.Brightness attenuate difference <10% 2.Forword voltage difference: ±20%

10. Recommended Solder Pad Design



Note:

1) Drawing is not to scale
2) All dimensions are in millimeter

Notes :
1. Drawing is not to scale
2. All dimensions are in millimeter

kwality

ISO 9001-2000

KWALITY PHOTONICS PRIVATE LIMITED

29,EC Kushaiguda, Hyderabad-50 062, INDIA. PH:91-040-27123555,27136252 9246227946

Email: sales@kwalityindia.com **www.kwalityindia.com**