

Power LED
White Light
Ultra Bright LED
Lead (Pb) Free Product - RoHS Compliant
HXHP-E3LV

Features

- **feature of the device:** o feature of the device: extremely wide viewing angle; long life time due to enhanced resin material
- **color coordinates:** x = 0.44, y = 0.43 acc. to CIE 1931 (white)
- **typ. color temperature:** 3000 K
- **viewing angle:** Lambertian Emitter (120°)
- **technology:** InGaN
- **grouping parameter:** luminous intensity, color coordinates
- **assembly methods:** suitable for all SMT assembly methods
- **soldering methods:** IR reflow soldering and TTW soldering
- **preconditioning:** acc. to JEDEC Level 2
- **ESD-withstand voltage:** ESD sensitive device

Applications

- outdoor displays
- backlighting (LCD, switches, keys, displays, illuminated advertising)
- interior and exterior automotive lighting
- substitution of micro incandescent lamps, reading lamps
- emergency lighting
- signal and symbol luminaire
- marker lights (e.g. steps, exit ways, etc.)

Ordering Information

Type	Color of Emission	Luminous flux ($I_F=700mA$)	
		Min I_V (lm)	Typ I_V (lm)
HXHP-E3LV	white	39.8	60

Note: The above Type Numbers represent the order groups which include only a few brightness groups. Only one group will be shipped on each reel (there will be no mixing of two groups on each reel). E.g. HXHP-E3LV will be shippable for any one reel.

In order to ensure availability, single brightness groups will not be orderable.

In a similar manner for colors where chromaticity coordinate groups are measured and binned, single chromaticity coordinate groups will be shipped on any one reel. E.g. HXHP-E3LV will be shippable.

In order to ensure availability, single chromaticity coordinate groups will not be orderable.

Maximum Ratings

Parameter	Symbol	Value			Unit
		Min	Type	Max	
Luminous flux ⁽¹⁾	$\Phi_V^{(2)}$	39.8	60	--	lm
Correlated color temperature ⁽³⁾	CCT	2650	--	3800	k
CRI	R_a	--	80	--	
Forward voltage ⁽⁴⁾	V_F	3.0	3.7	4.0	V
Forward current	I_F	--	0.7	--	A
Power dissipation	P_D	--	2.6	--	W
Junction temperature	T_J	--	--	120	°C
Operation temperature	T_{OP}	-40~+105			°C
Storage temperature	T_{ST}	-40~+120			°C
ESD sensitivity ⁽⁵⁾		±20,000 HBM			V

(1) SSC maintains a tolerance of $\pm 10\%$ on flux and power measurements.

(2) Φ_V is the total luminous flux output as measured with an integrated sphere.

(3) Dominant wavelength is derived from the CIE 1931 Chromaticity diagram. A tolerance of $\pm 0.5\text{nm}$ for dominant wavelength

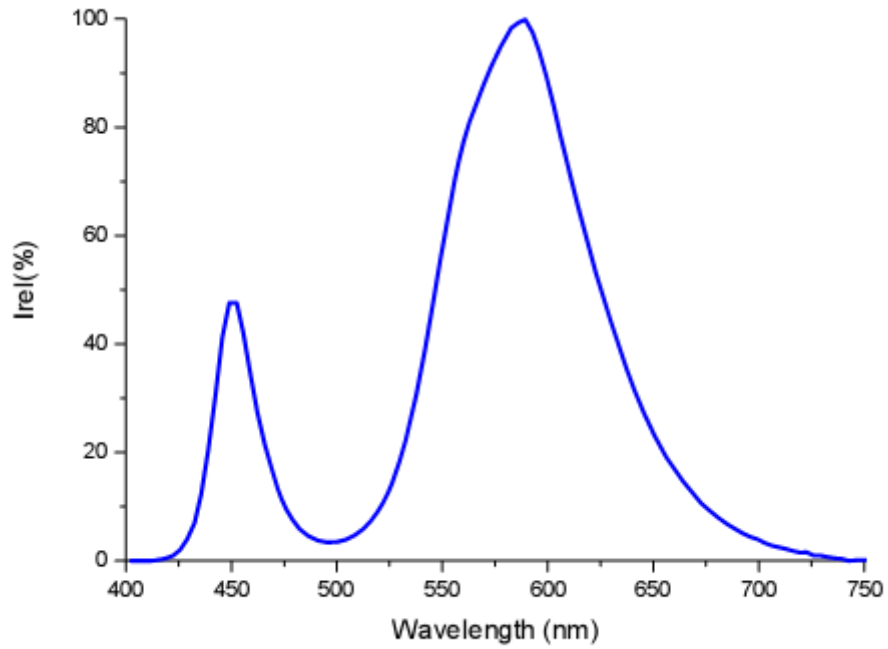
(4) A tolerance of $\pm 0.06\text{V}$ on forward voltage measurements

(5) It is included the zener chip to protect the product from ESD. (Request)

Relative Spectral Emission

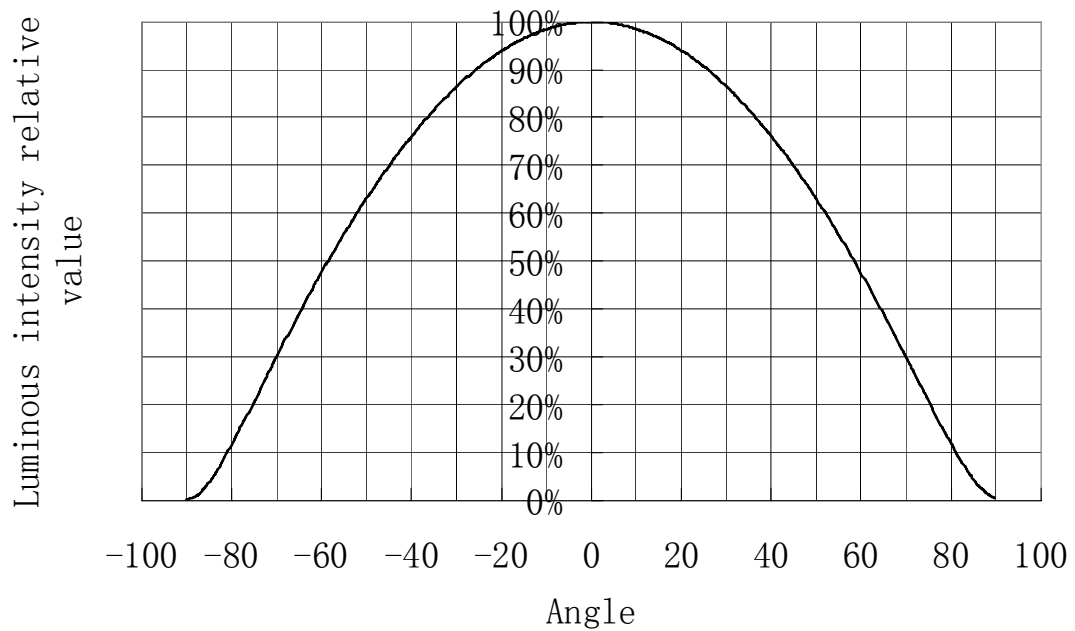
$V(\lambda)$ = Standard eye response curve

$\Phi_{rel} = f(\lambda)$; $T_A = 25\text{ }^\circ\text{C}$; $I_F = 700\text{mA}$

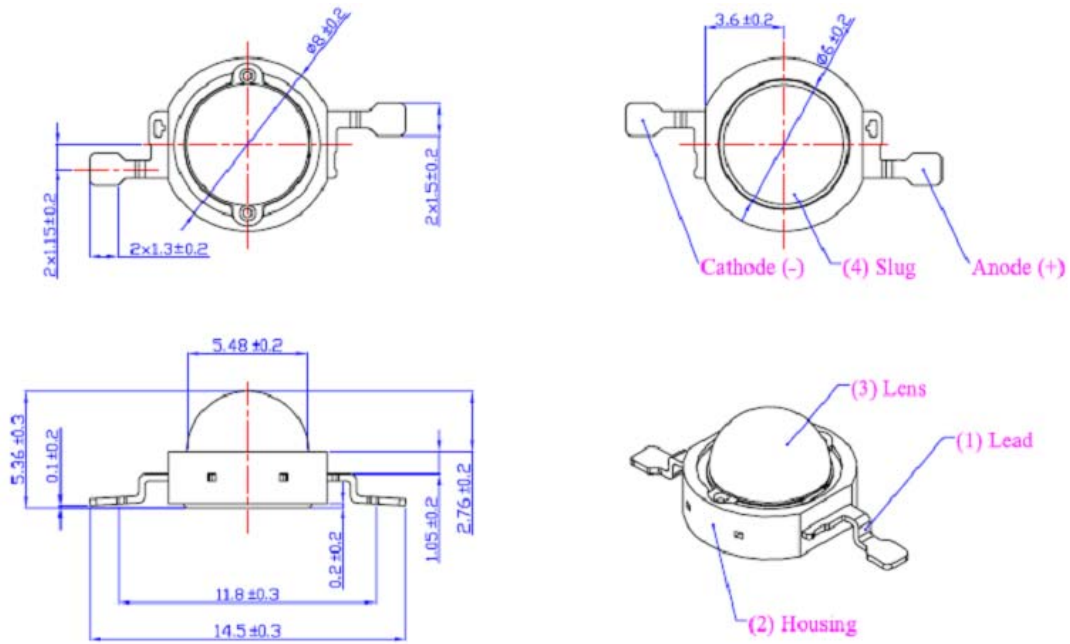


Radiation Characteristic

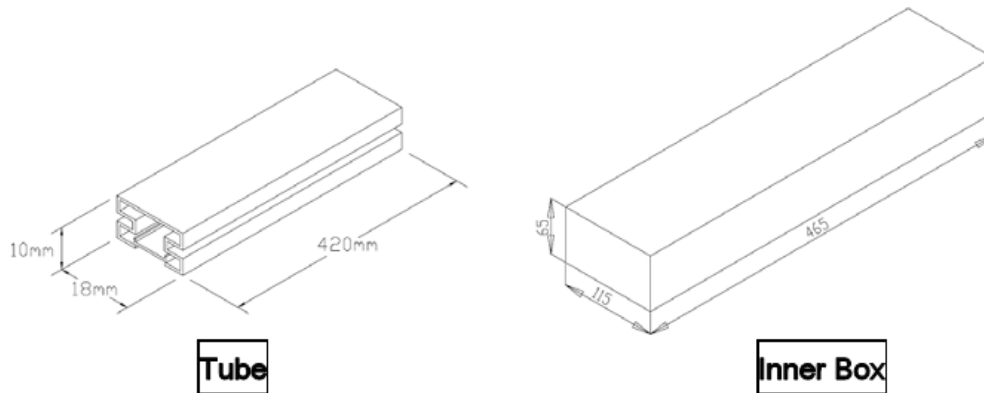
$\Phi_{rel} = f(\varphi)$; $T_A = 25\text{ }^\circ\text{C}$



Package Outlines

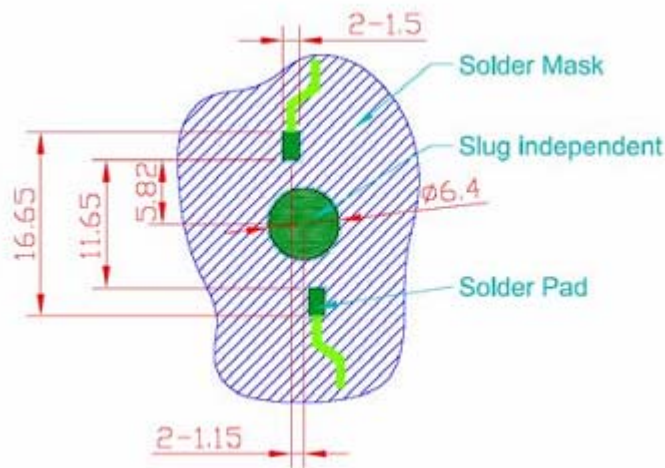


Method of Taping / Polarity and Orientation



Recommended Solder Pad

IR Reflow Soldering



Soldering Conditions

Preconditioning acc. to JEDEC Level 2

IR Reflow Soldering Profile for lead free soldering (acc. to J-STD-020B)

