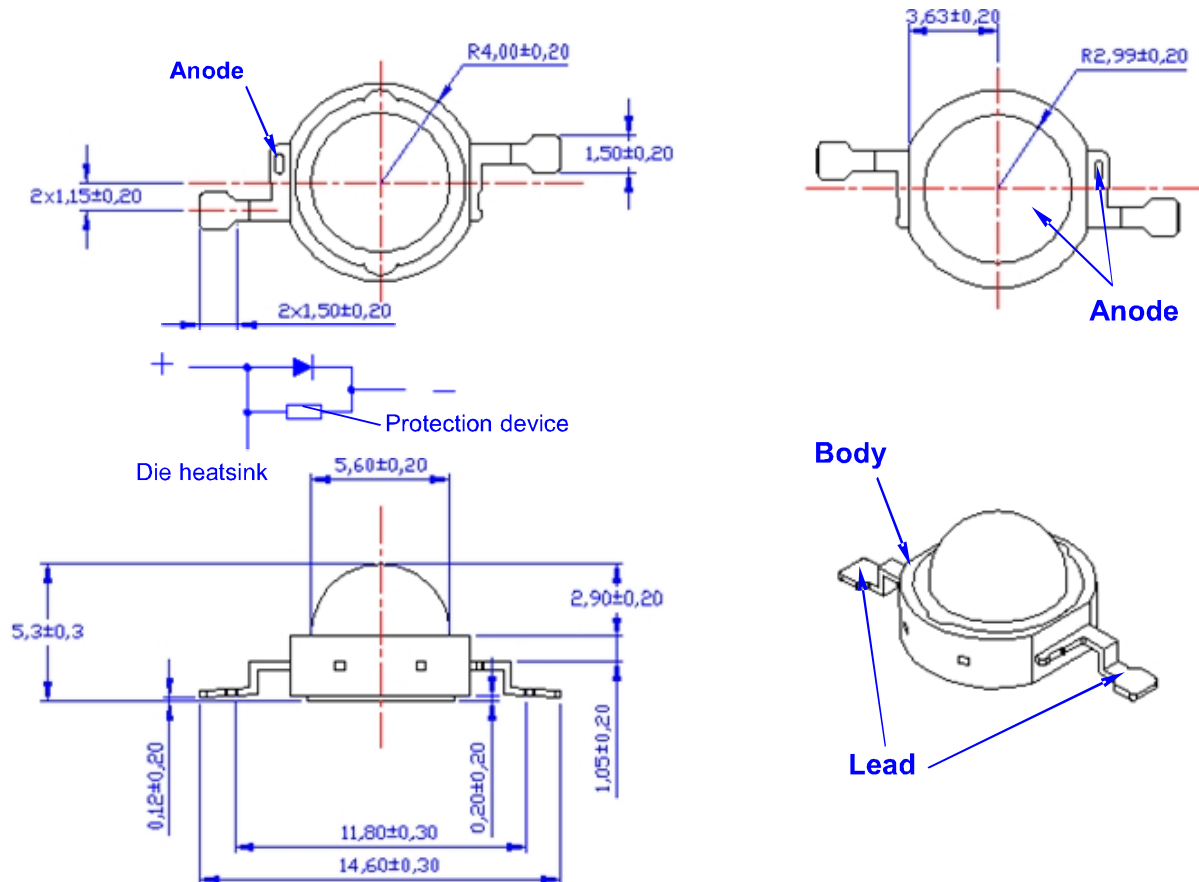


Feature :

Excellent Operating Life
High Efficiency
Silicone lens technology
Specially designed to fit secondary optics
Low Thermal Resistance
Fully Dimmable
Superior ESD Protection
100% RoHS Compliant
The light output decay is less than 10% at crucial
test condition (350mA, ambient 85°C and 85%RH).

1. Mechanical Dimensions



Notes:

1. Drawings are not to scale.
2. All dimensions are in millimeter.
3. General tolerance is 0.2mm.
4. The polarity of slug at bottom is anode.
5. It is important that the slug to be isolated on MCPCB or heat-sink. For isolation it is strongly recommended that there should a coating of uniform electrically isolated heat dissipation film on the aluminum/metallic surface.

2. Absolute Ratings

Parameter	Rating
	White Series
Typical DC Forward Current (mA)	350mA
LED Junction Temperature	125 °C
LED Operating Temperature	-40°C~110°C
Storage Temperature	-40°C~110°C
Soldering Temperature	Max. 260°C / 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)

3. General Characteristics

3.1 Luminous Flux and Forward Voltage at 350mA

Part number	Color	Luminous Flux(lm) or Radiometric Power*(mW) @350mA		Forward Voltage VF @350mA	
		Min	Typ	Min	Max
VAOP-EWS-1	Daylight	75	90	2.8	3.8
	Neutral White	70	80	2.8	3.8
	Warm White	50	80	2.8	3.8

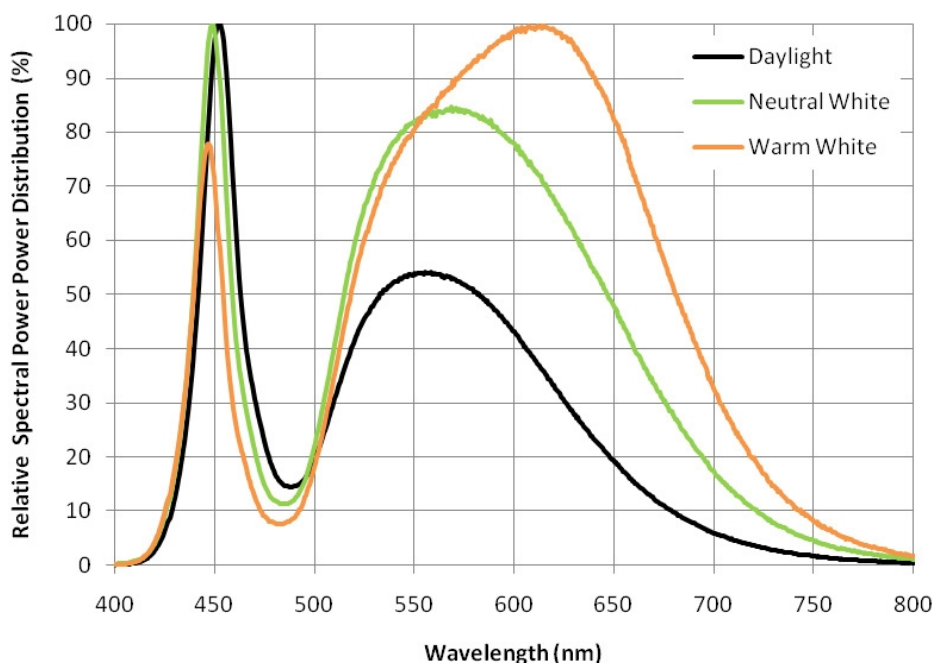
3.2 Dominant Wavelength λ_d or Peak Wavelength λ_p at 350mA

Part number	Color	Typ CRI	Correlated Color Temperature CCT		2 θ 1/2	Temp rature Coefficient of Vf (mV/°C)
			Min	Max		$\Delta V_F / \Delta T_J$
VAOP-EWS-1	Daylight	70	4750K	7000K	135	-3
	Neutral White	75	3700K	4750K	125	-3
	Warm White	80	2600K	3700K	125	-3

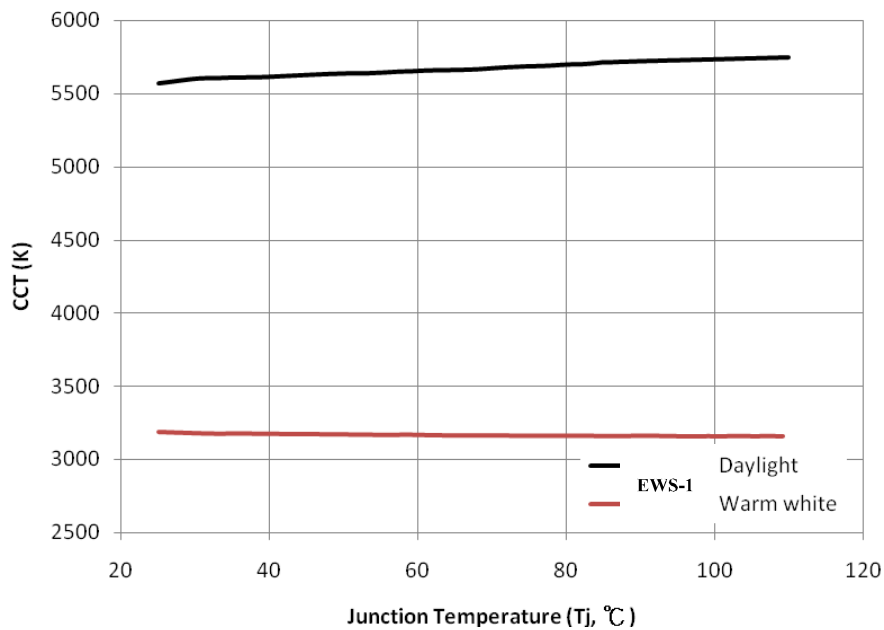
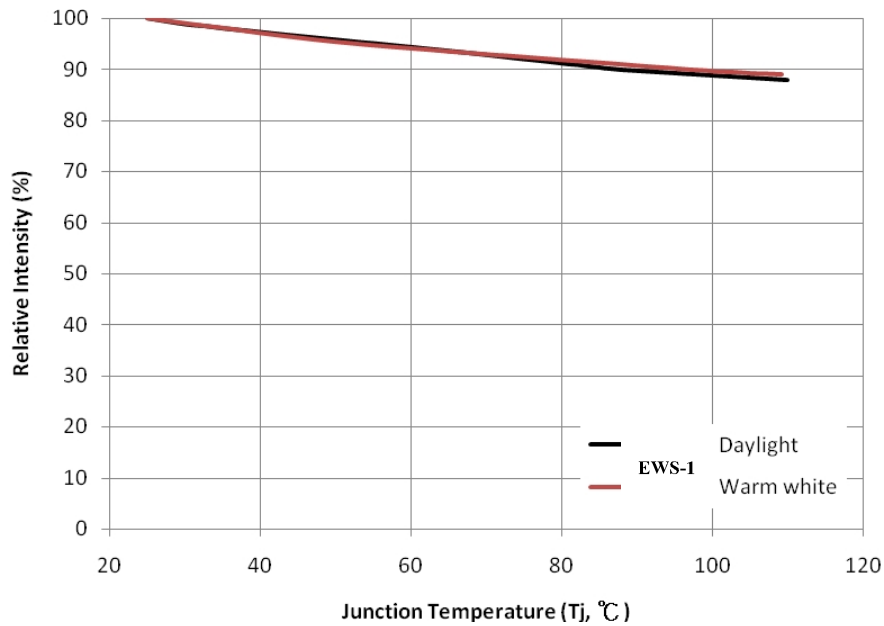
Notes :

1. Luminous flux is measured with an accuracy of $\pm 10\%$
2. The CCT is measured with an accuracy of $\pm 200K$
3. The peak/dominant wavelength is measured with an accuracy of $\pm 1nm$
4. The forward voltage is measured with an accuracy of $\pm 0.1V$

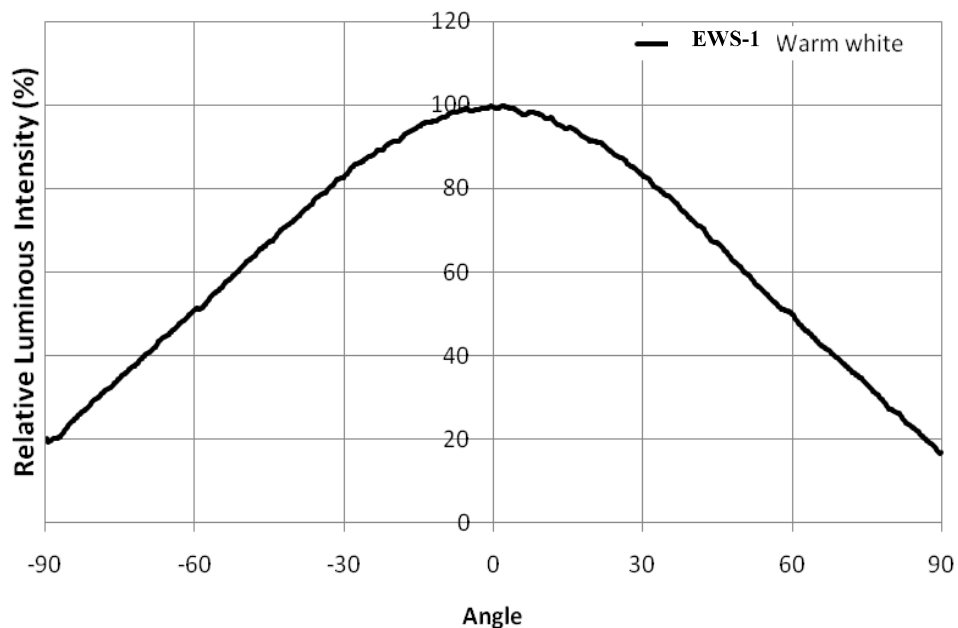
4. Relative Spectral Power Distribution, $T_a=25^\circ C$



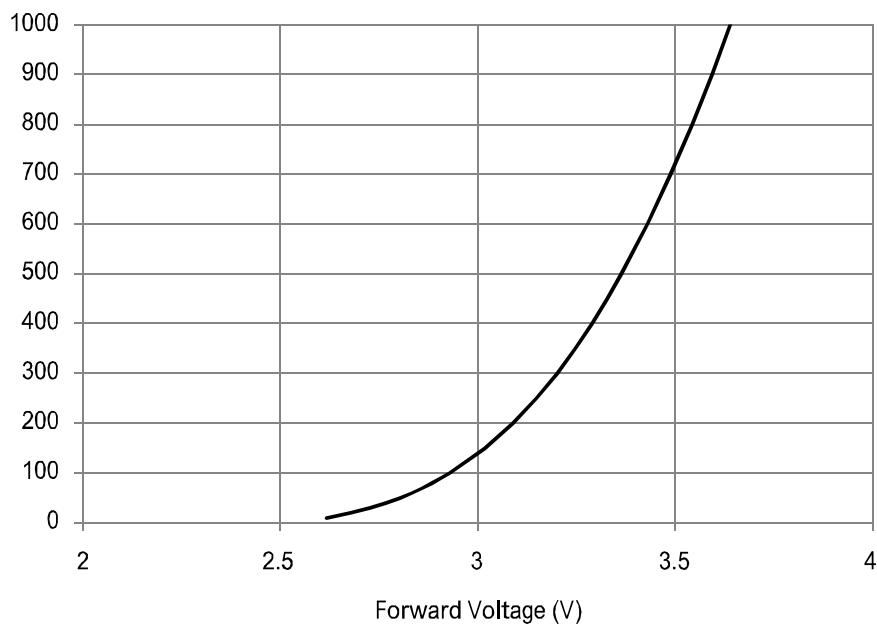
5. Typical Light Output Characteristics over Temperature



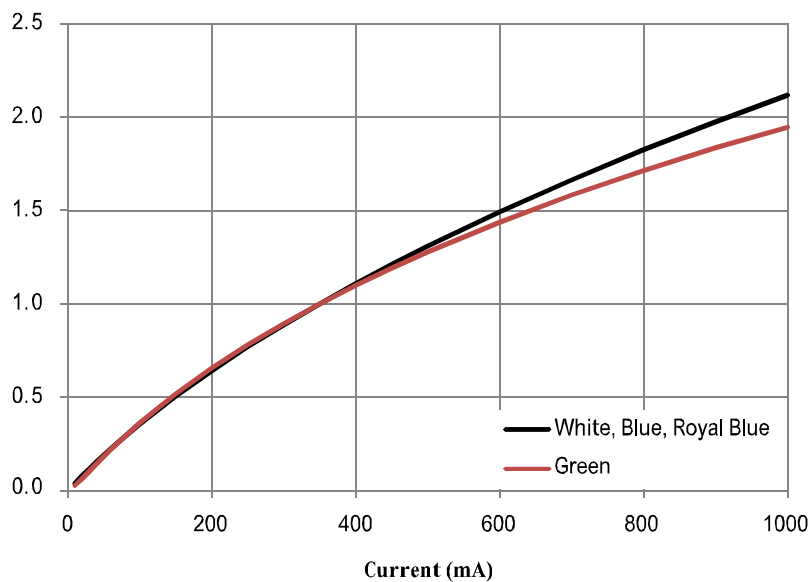
6. Typical Spatial Radiation Pattern



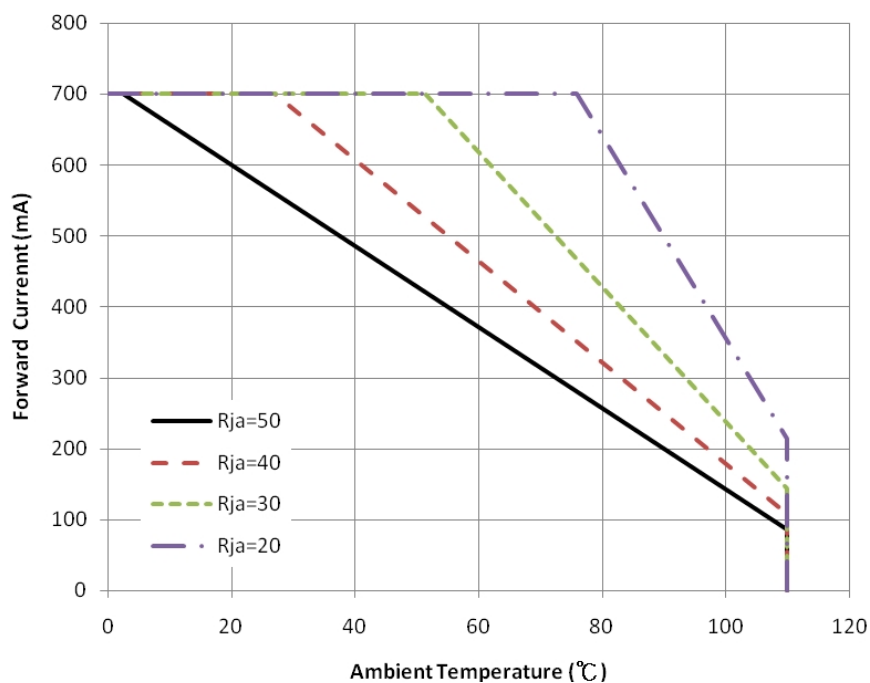
7. Typical Forward I-V Characteristics



8. Typical Forward L-I Characteristics



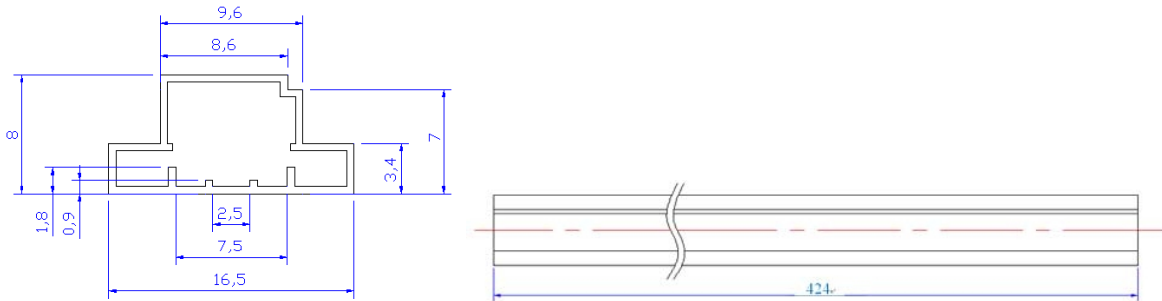
9. Current Derating Curves



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

10. Shipping Package Information

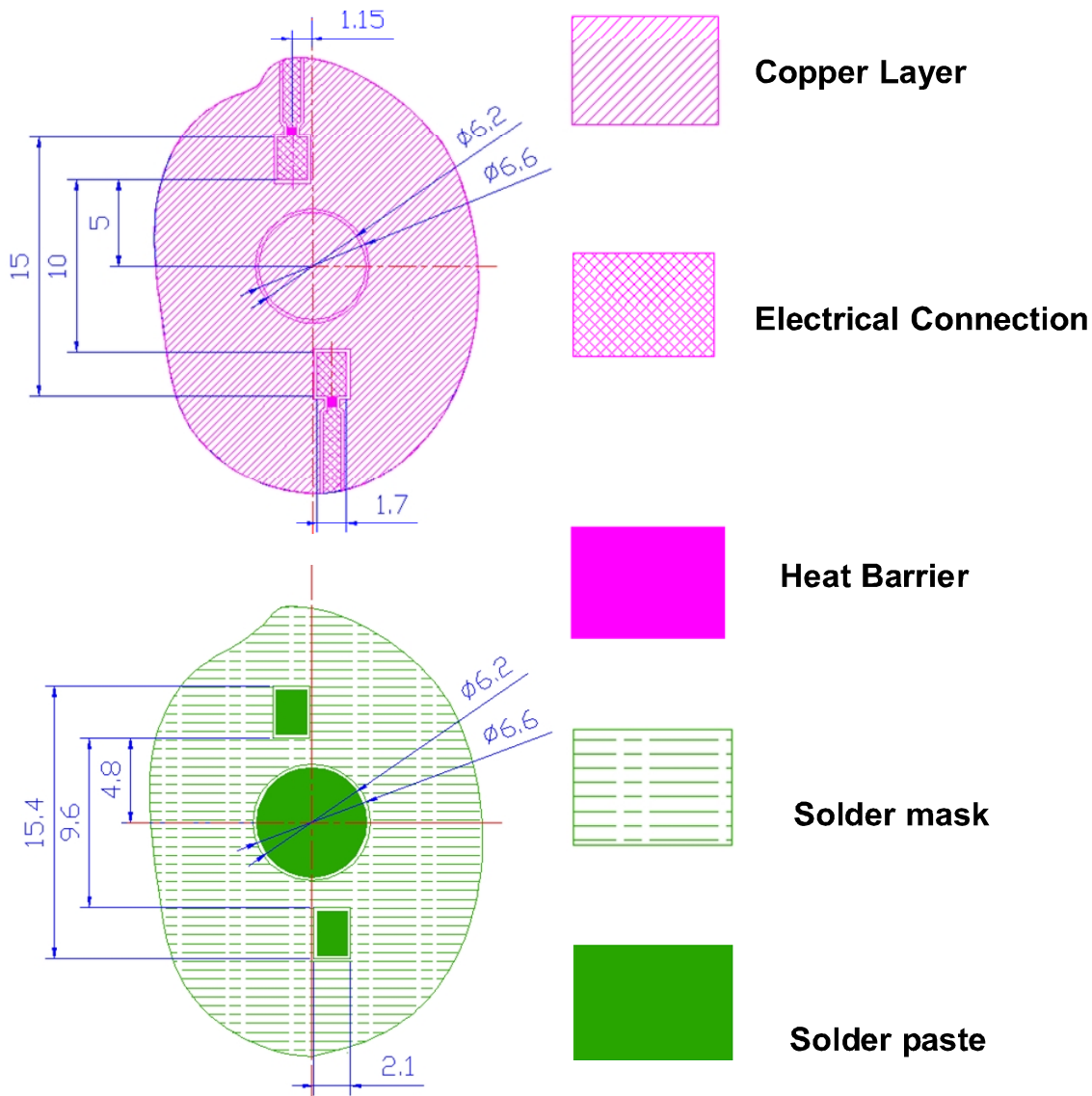
Tube



1. All dimensions are in millimeter

Level	Dimensions (L*W*H)	Emitter Quantity
Tube	424*16.7*10.0 mm	50 EA

11. Recommended Solder Pad Design



Notes :

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