

Introduction:

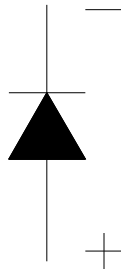
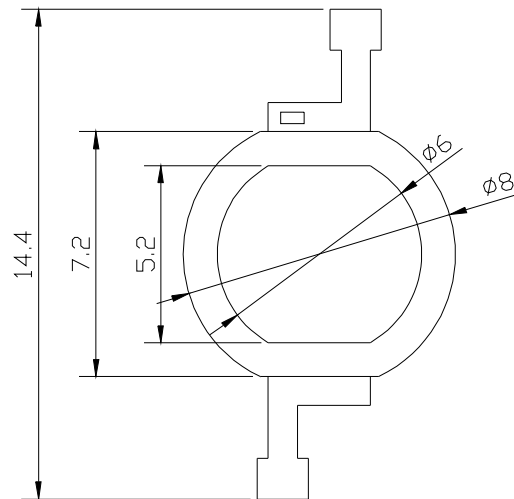
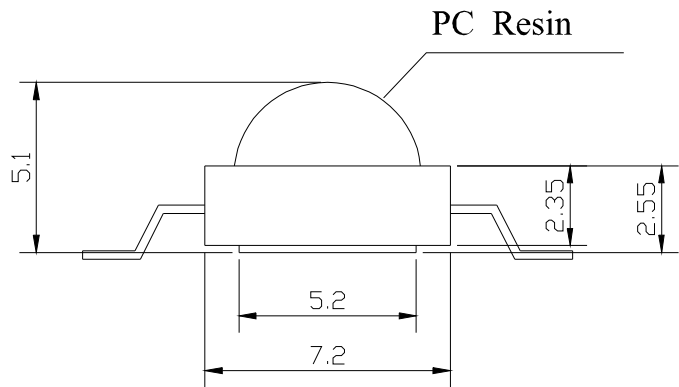
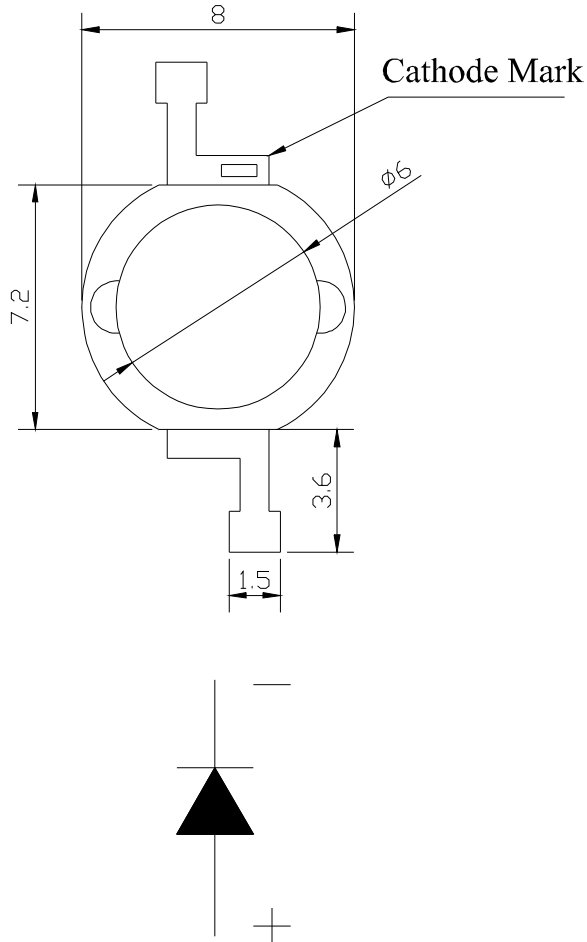
This emitter with silicone lens technology provides the good life and can be reflow at 260°C The light output decay is less than 10% at crucial test condition(350mA, ambient 85°C and 85%RH).

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

Feature :

- Excellent Operating Life
- High Efficacy
- Low Thermal Resistance
- SMD Device
- Instant Light
- Fully Dimmable
- No UV
- Superior ESD Protection
- RoHS Compatibility

1. Mechanical Dimensions



Notes:

1. Drawings are not to scale.
2. All dimensions are in millimeter.
3. General tolerance is ± 0.2 mm.
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

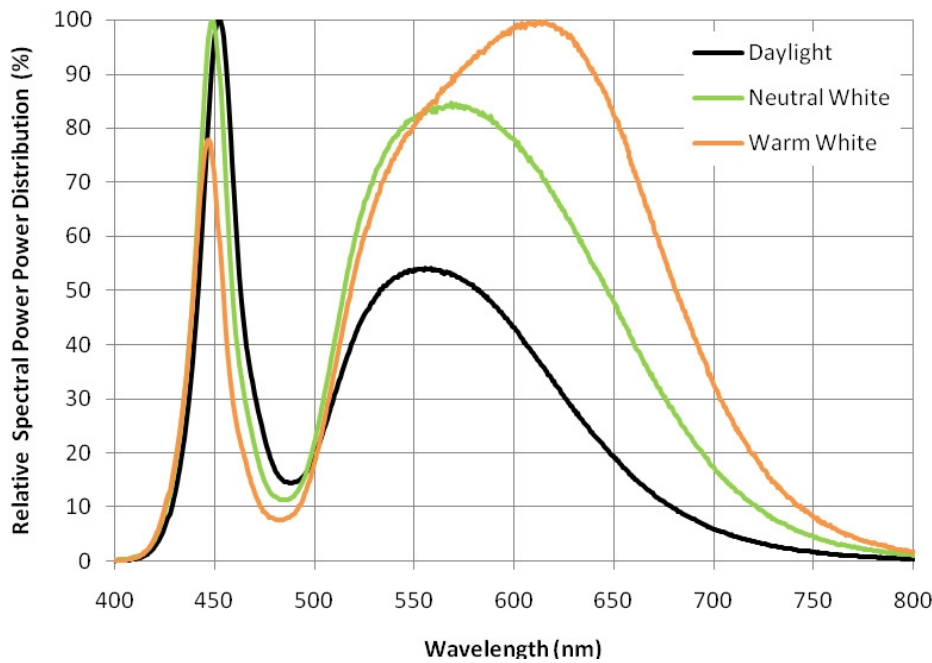
3.2 Dominant Wavelength λ_d or Peak Wavelength λ_p at 350mA

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

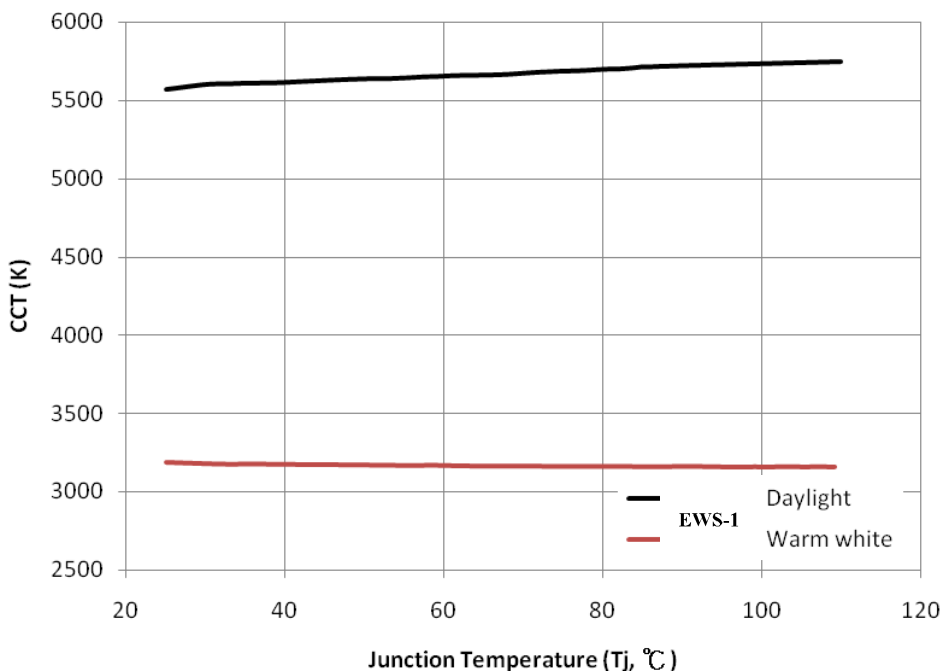
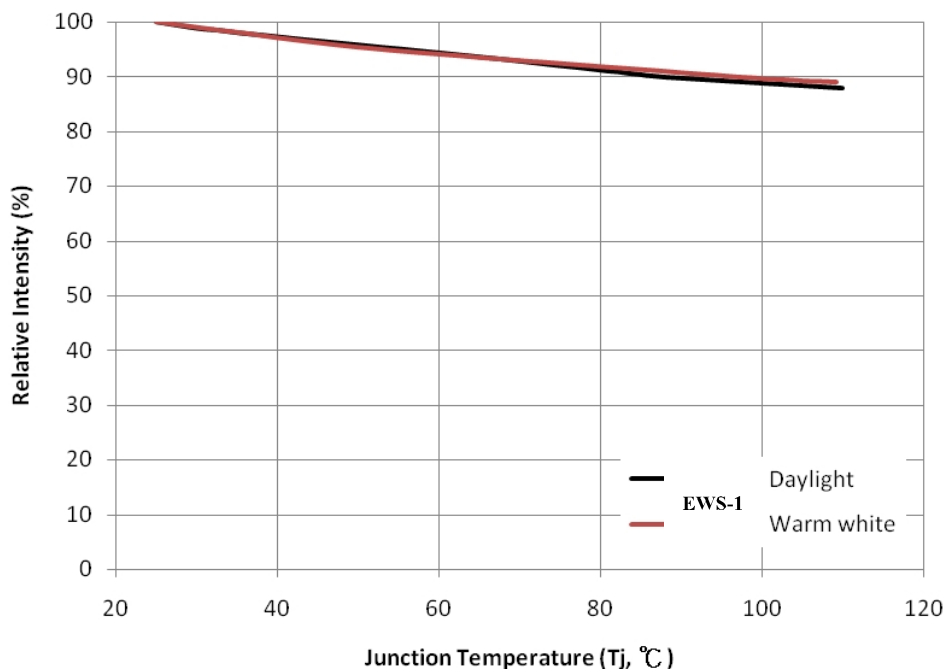
Notes :

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 $\pm 0.1V$

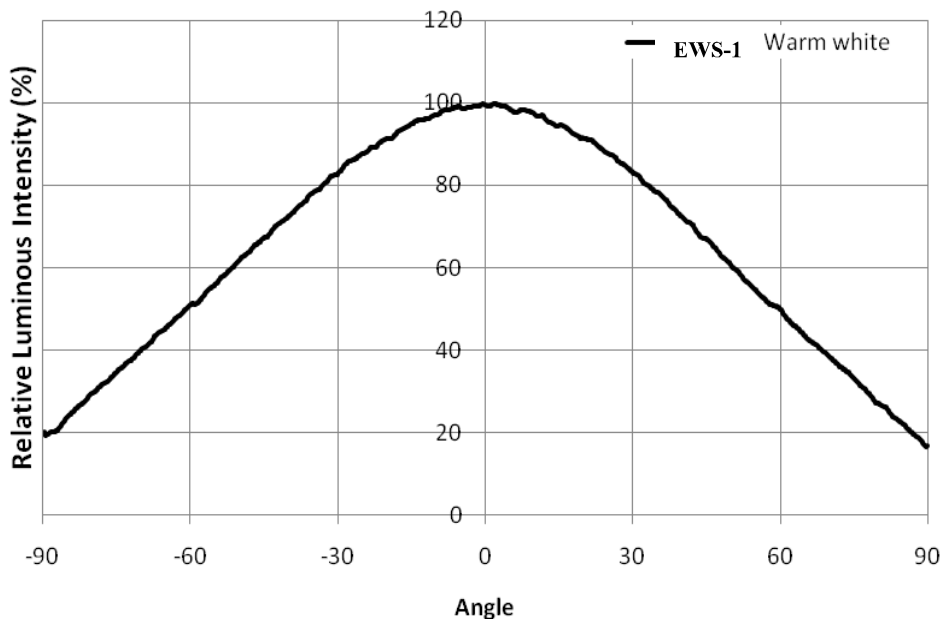
4. Relative Spectral Power Distribution, $T_a=25^\circ C$



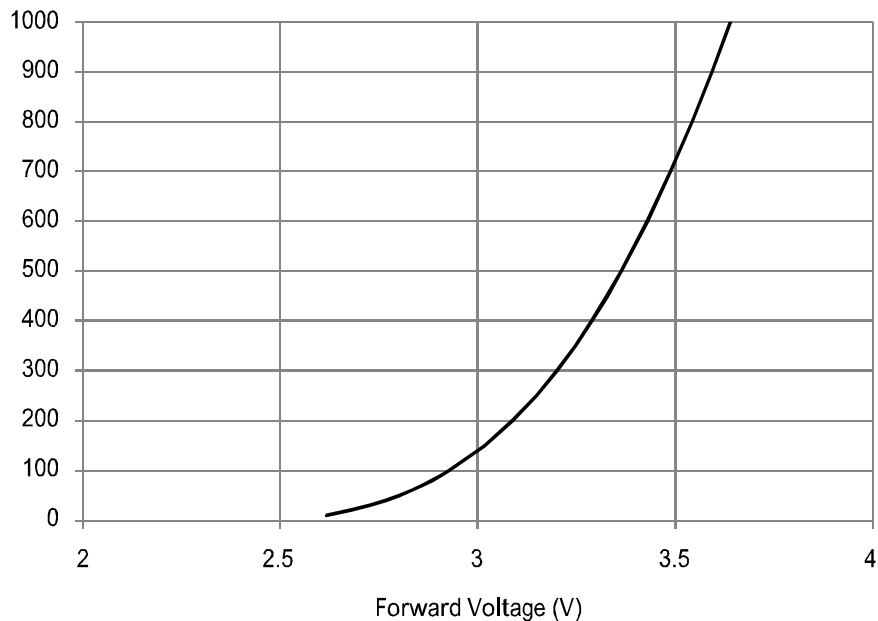
5. Typical Light Output Characteristics over Temperature



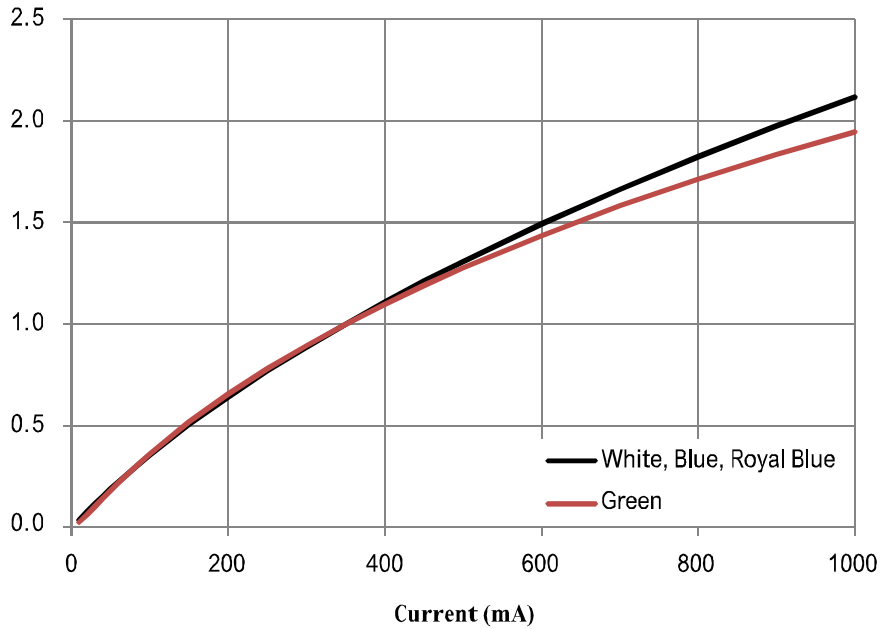
6. Typical Spatial Radiation Pattern



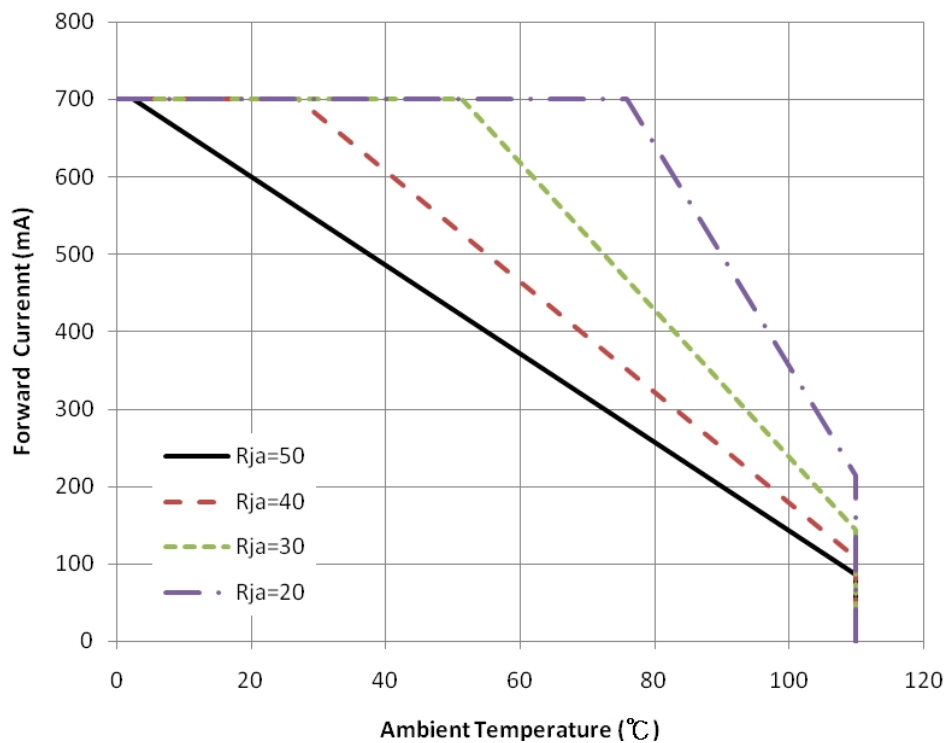
7. Typical Forward I-V Characteristics



8. Typical Forward L-I Characteristics



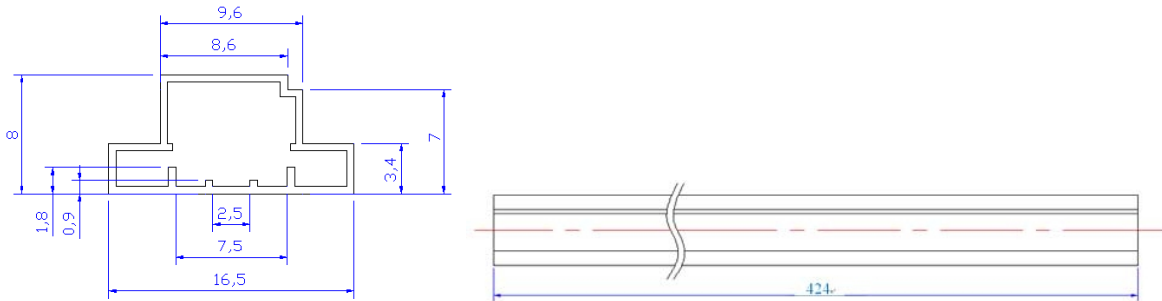
9. Current Derating Curves



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

10. Shipping Package Information

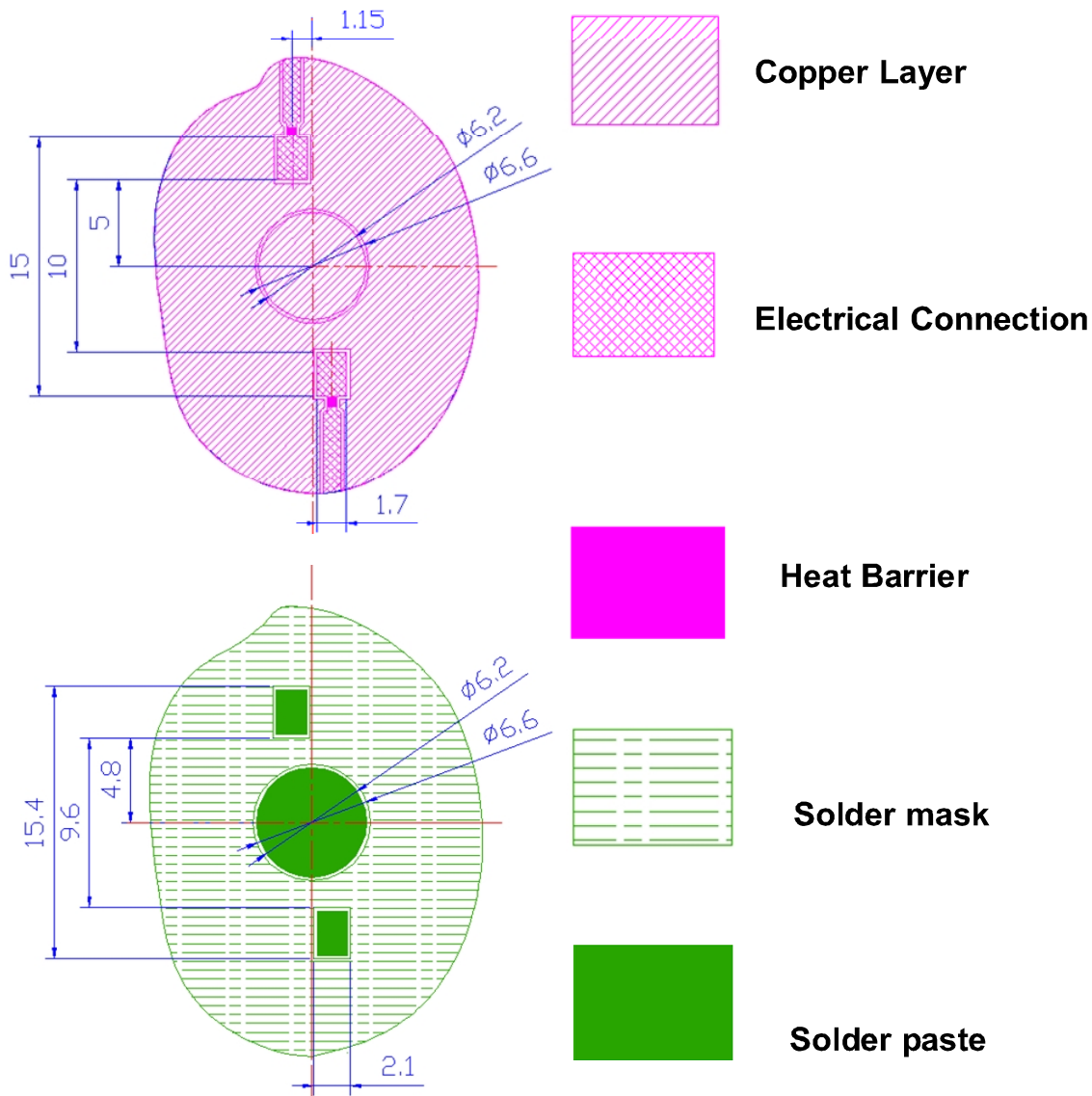
Tube



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