



## Absolute Maximum Rating

Item	Symbol	Absolute Maximum Rating	Unit
Forward Current	$I_F$	20	mA
Peak Forward Current*	$I_{FP}$	160	mA
Reverse Voltage	$V_R$	5	V
Power Dissipation	$P_D$	85	mW
Electrostatic discharge	$E_{SD}$	400	V
Operation Temperature	$T_{opr}$	-25 +80	
Storage Temperature	$T_{stg}$	-40 +80	
Lead Soldering Temperature*	$T_{sol}$	Max. 230 for 5sec Max.	

\* $I_{FP}$  Conditions : Pulse Width 10msec duty 1/10

\* $T_{sol}$  Conditions : 3mm from the base of the epoxy bulb

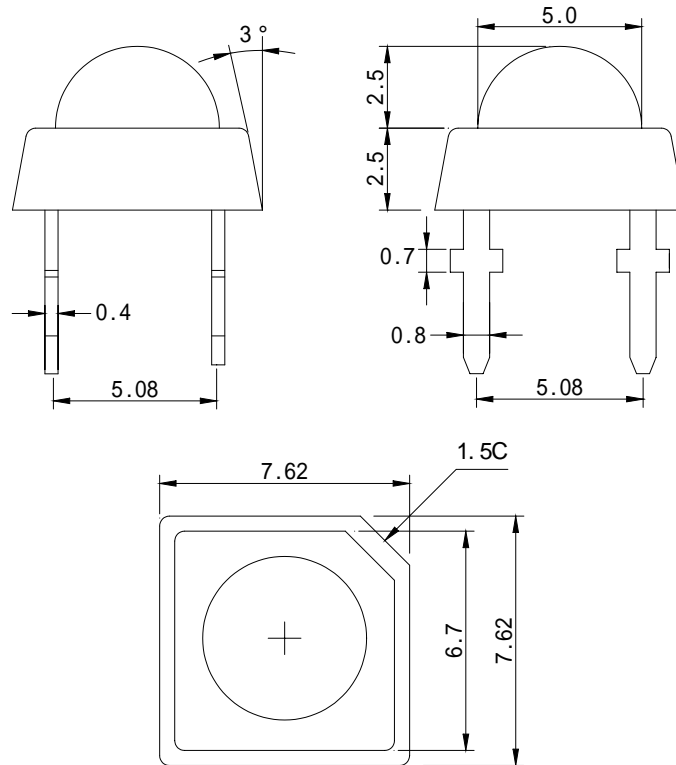
## Typical Optical/ Electrical Characteristics

Item	Symbol	Condition	Min.	Typ.	Max.	Unit
Forward Voltage	$V_F$	$I_F=20mA$	3.0	3.4	3.8	V
Reverse Current	$I_R$	$V_r=5V$	--	--	10	$\mu A$
50% Power Angle	2 1/2	$I_F=20mA$	--	65	--	deg
Luminous Intensity	$I_v$	$I_F=20mA$	300	500	--	mcd
Peak Wavelength	$\lambda_p$	$I_F=20mA$	--	467	--	nm
Recommend Forward Current	$I_F(rec)$	--	--	10~20	--	mA

## Notes:

1. Absolute maximum ratings  $T_a=25$  .
2. Tolerance of measurement of forward voltage  $\pm 0.1V$ .
3. Tolerance of measurement of peak Wavelength  $\pm 2.0nm$ .
4. Tolerance of measurement of luminous intensity  $\pm 15\%$ .

## Package Dimensions And Materials



Chip		Lens Color
Material	Emitting Color	
InGaN/SiC	BLUE	Water clear

## Notes:

1. All dimension units are millimeters.
2. All dimension tolerance is  $\pm 0.2\text{mm}$  unless otherwise noted.
3. An epoxy meniscus may extend about 1.5mm down the leads.
4. Burr around bottom of epoxy may be 0.5mm max..



## Reliability Performance

## 1. Test Items And Result

Test Classification	Test Item	Test Conditions	Test Duration	Sample Size	AC/RE
Life Test	Room Temperature DC Operating Life Test	Ta=25 ±5 , IF=20mA	1000 hrs	30pcs	0/1
Environment Test	Thermal Shock Test	-10 ±5      +100 ±5 5min. 10sec. 5min.	50 cycles	30 pcs	0/1
	Temperature Cycle Test	-40 ±5      +85 ±5 30min. 5min. 30min.	50 cycles	30 pcs	0/1
	High Temperature & High Humidity Test	Ta=85 ±5 RH =85% ± 0.5 %RH	1000 hrs	30 pcs	0/1
	High Temperature Storage	Ta=100 ±5	1000 hrs	30 pcs	0/1
	Low Temperature Storage	Ta=-55 ±5	1000 hrs	30 pcs	0/1
Mechanical Test	Resistance to Soldering Heat	Ta=230 ±5	5sec.	30 pcs	0/1
	Lead Integrity	Load 2.5N(0.25kgf) 0° ~ 90° ~ 0°	3times	30 pcs	0/1

## 2. Criteria for Judging The Damage

Item	Symbol	Test Conditions	Criteria for Judgment	
			Min.	Max.
Forward Voltage	V <sub>F</sub>	I <sub>F</sub> =20mA		U.S.L.*1.2
Reverse Current	I <sub>R</sub>	V <sub>R</sub> =5V		U.S.L.*2.2
Luminous Intensity	I <sub>V</sub>	I <sub>F</sub> =20mA	L.S.L.** x 0.7	

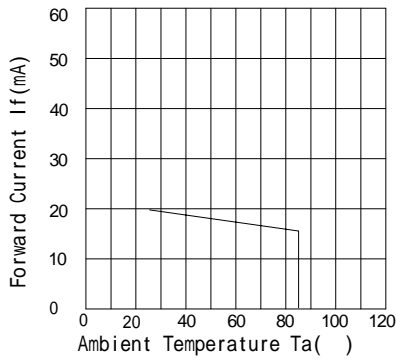
U.S.L.\* : Upper Standard Level

L.S.L.\*\* : Lower Standard Level

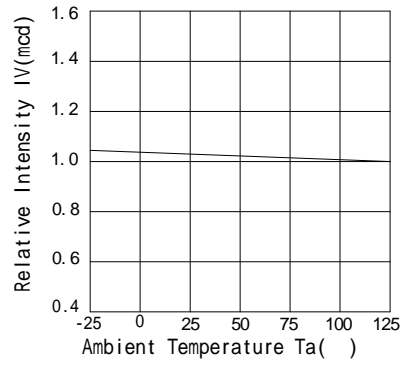
Typical Optical/Electrical Characteristics Curves

( $T_a=25$  Unless Otherwise Noted )

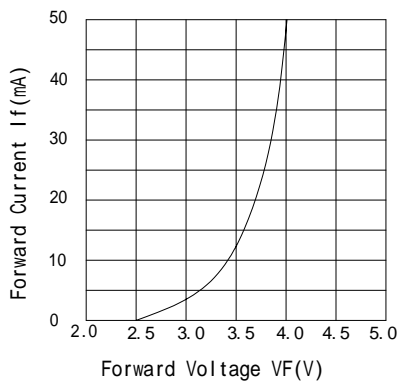
Forward Current vs. Ambient Temperature



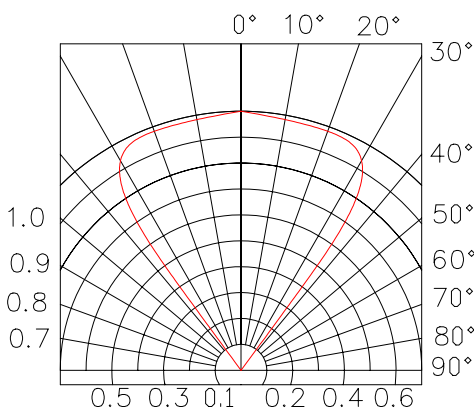
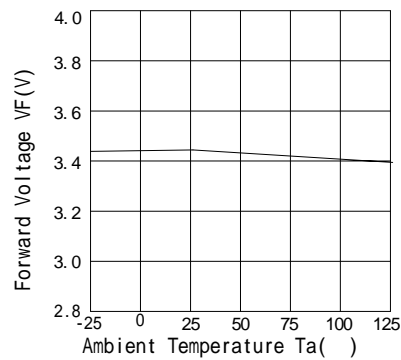
Relative Intensity  $I_V$  (mod) vs. Ambient Temperature



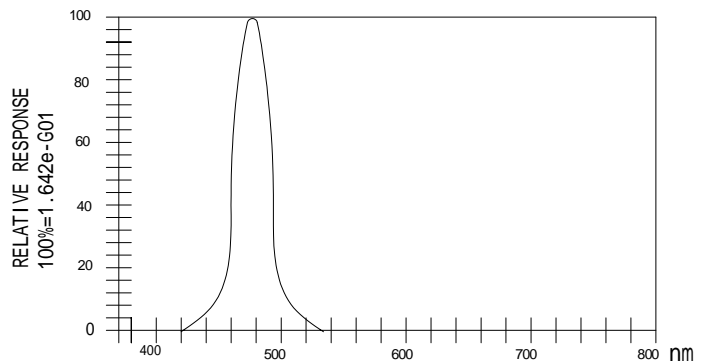
Forward Current vs. Forward Voltage



Forward Voltage vs. Ambient Temperature



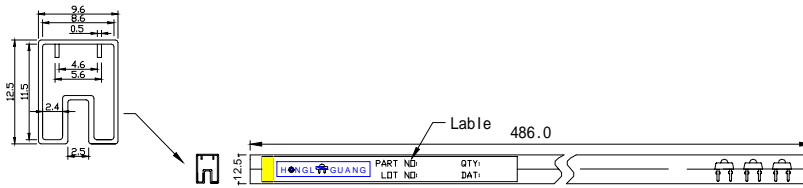
Luminous Spectrum ( $T_a=25$ ) SPECTRAL RADIANCE





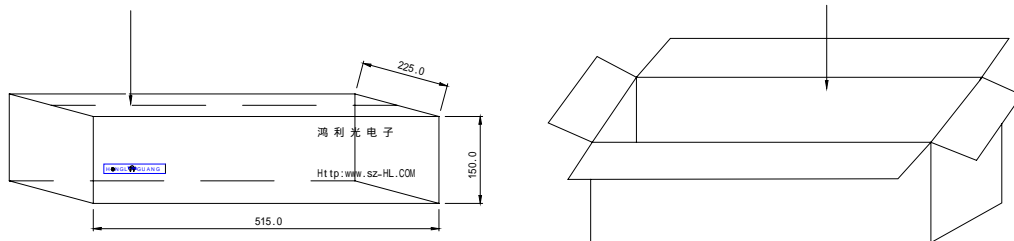
### Package means

#### 1.Package Adhesive Pipe.



Notes: Each Adhesive Pipe 60pcs.

#### 2.Superficial Package paper boxes.



Notes: Each paper boxes 238 bar .