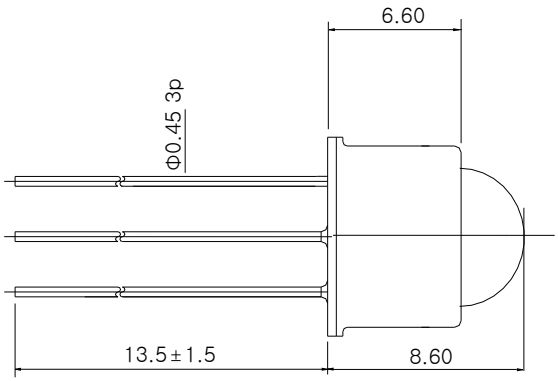
TH-UVxx5WFYT-TO39H-P3

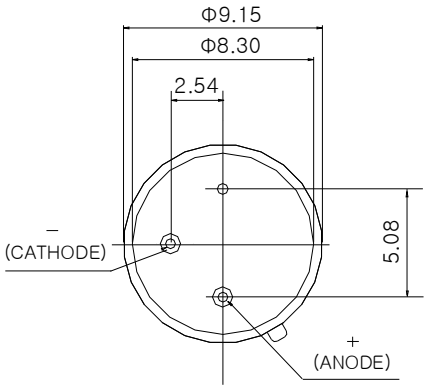
CAUTION

OBSERVE PRECAUTIONS
FOR HANDLING
ELECTROSTATIC
DISCHARGE
SENSITIVE
DEVICES

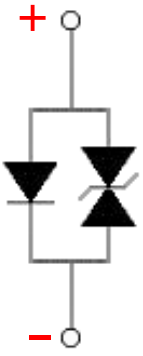
Mechanical Dimensions



Side View



Top View



Notes :

[1] All dimensions are in millimeters.
[2] Scale : none
[3] Undefined tolerance is ±0.3mm

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Typical Electrical & Optical Characteristics at Ta = 25°C

Items	Symbol	Condition	Min.	Typ.	Max.	Unit
Forward Current	I_F			20		mA
Forward Voltage[4]	V_F	I_F= 20mA	4.8		7.0	V
Radiant Flux[2]	Φ_e[3]	I_F= 20mA	0.5		2.5	mW
Peak Wavelength[1] 255nm:TH-UV255WFYT-TO39H-P3 265nm:TH-UV265WFYT-TO39H-P3 275nm:TH-UV275WFYT-TO39H-P3 285nm:TH-UV285WFYT-TO39H-P3 295nm:TH-UV295WFYT-TO39H-P3 305nm:TH-UV305WFYT-TO39H-P3 315nm:TH-UV315WFYT-TO39H-P3	λp	I_F= 20mA	250	255	260	nm
			260	265	270	
			270	275	280	
			280	285	290	
			290	295	300	
			300	305	310	
			310	315	320	
Viewing Angle	2 θ½	I_F= 20mA		7.5		deg.
Spectrum Half Width	Δ λ	I_F= 20mA		11		nm

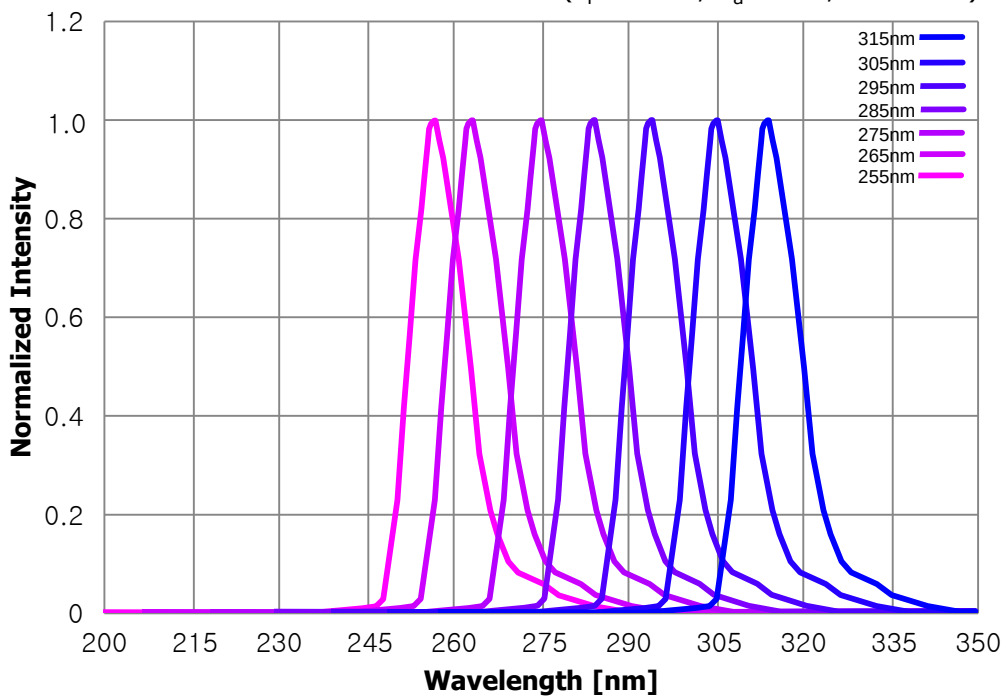
Absolute Maximum Ratings at Ta = 25°C

Parameter	Symbol	Absolute maximum Rating	Unit
Forward Current	I_F	60	mA
Power Dissipation	P_D	380	mW
Operation Temperature	Topr	-15 ~ +60	°C
Storage Temperature	Tstg	-40 ~ +85	°C
Lead Soldering Temperature	Tsol	260(≤ 3s)	°C
Electrostatic Discharge Classification (MIL-STD-883E)	ESD	Class 1	

* Where pulse width <= 0.1msec, duty cycle <= 1/10

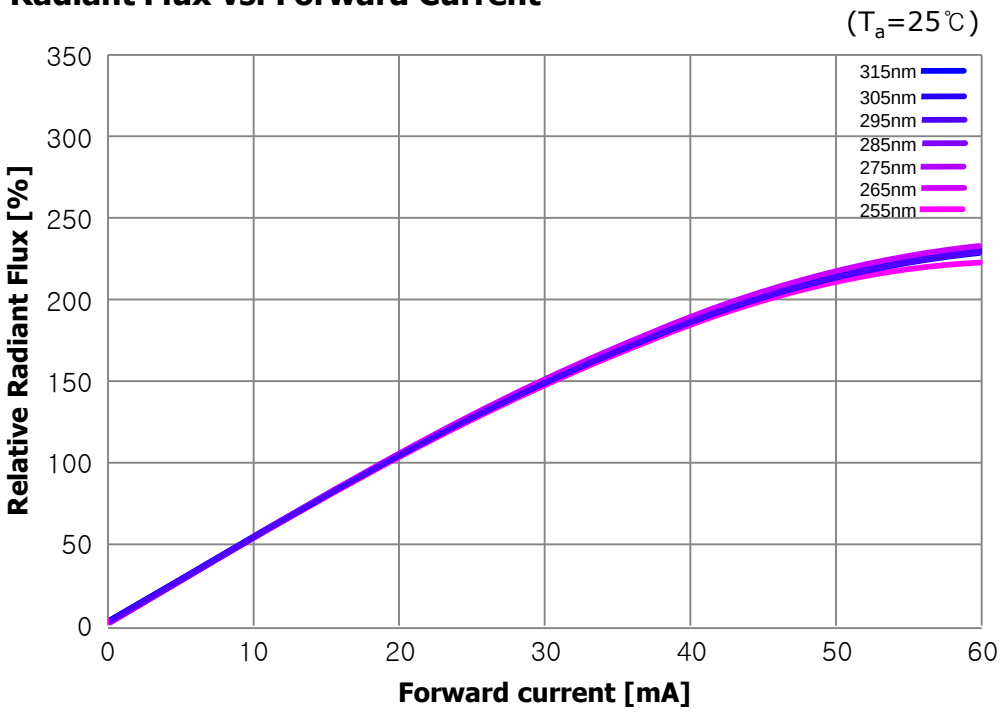
Spectral Power Distribution

(I_F=20mA, T_a=25℃, RH=30%)



Relative Radiant Flux vs. Forward Current

(T_a=25℃)



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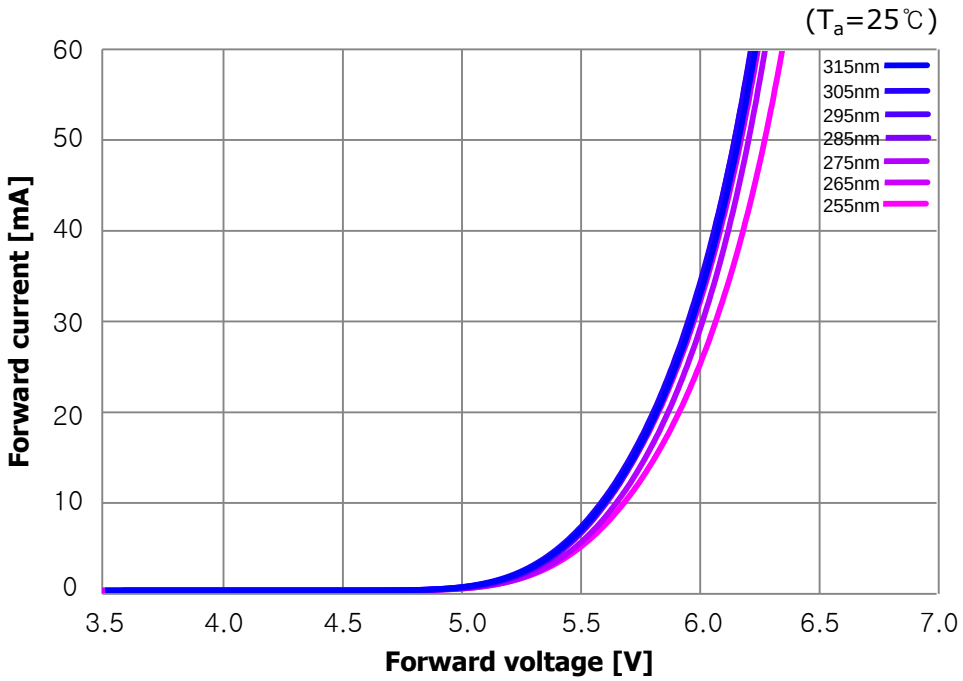
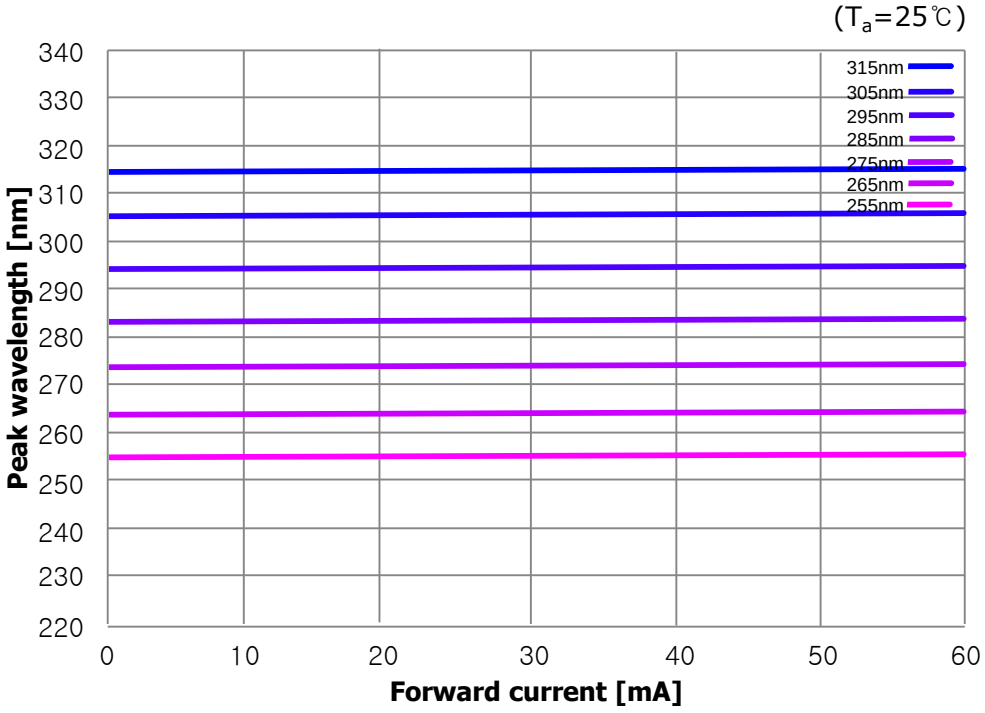
Forward current vs. Forward Voltage



Peak Wavelength vs. Forward current



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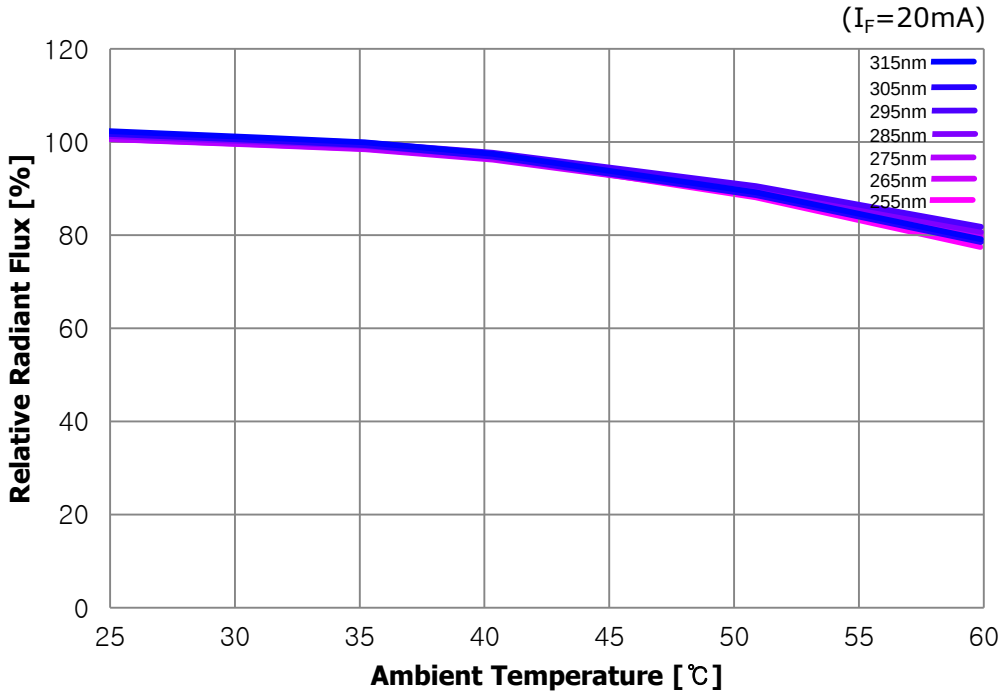
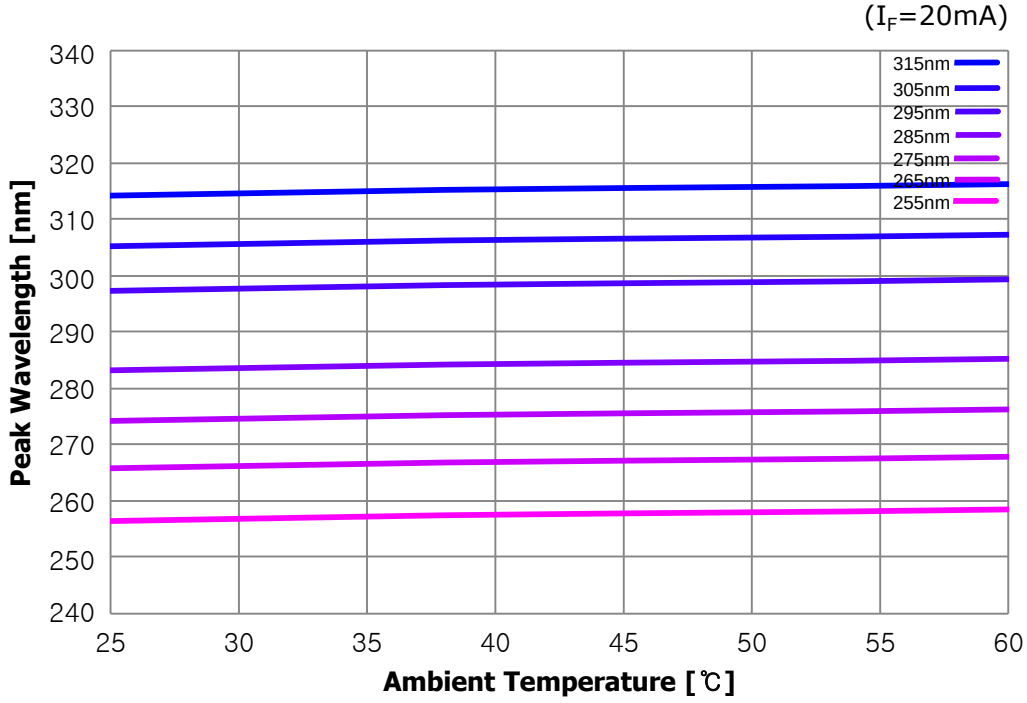
Relative Radiant Flux vs. Ambient Temperature



Peak Wavelength vs. Ambient Temperature



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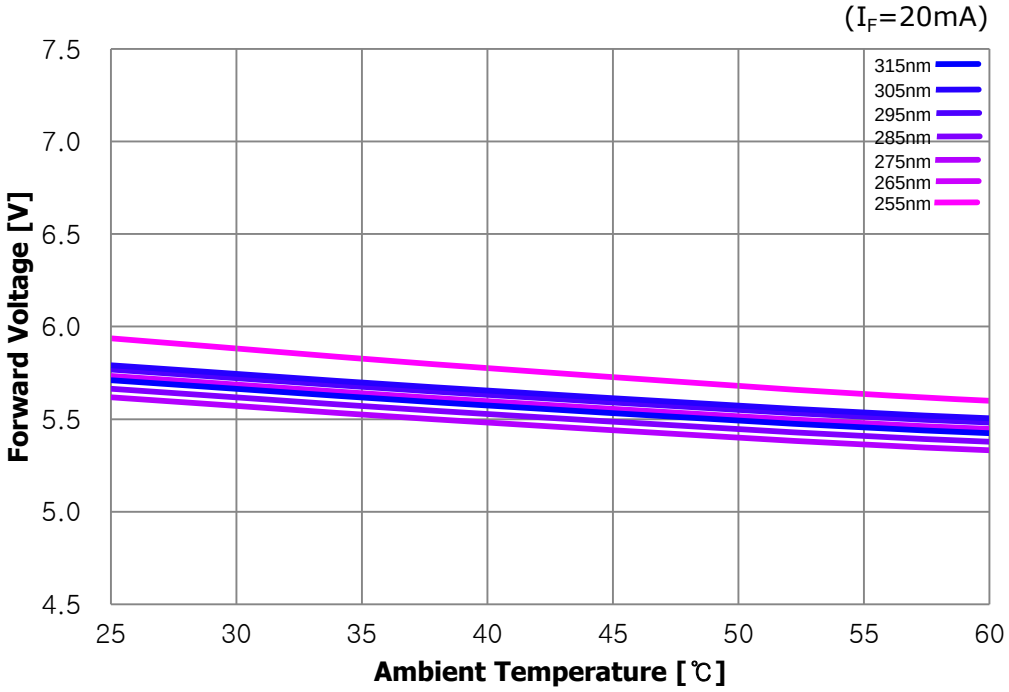
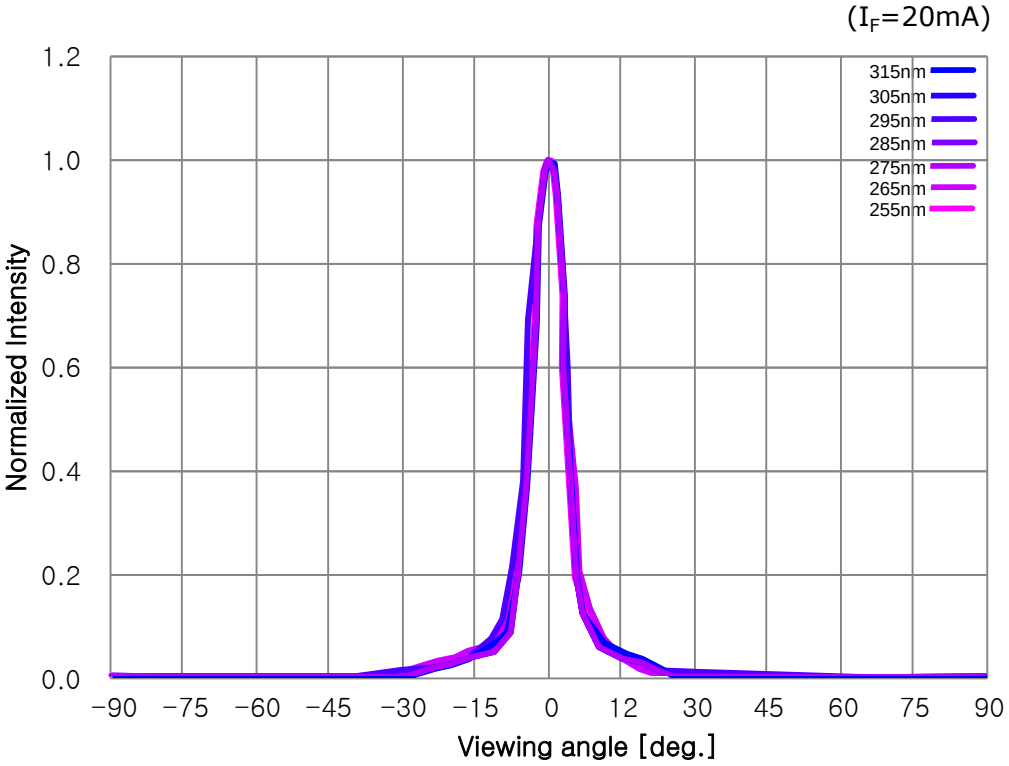
Forward Voltage vs. Ambient Temperature



Radiant Pattern



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Lead Forming

- When forming leads, the leads should be bent at a point at lease3mm from the base of the lead. Do not use the base of the leadframe as a fulcrum during lead forming.
- Lead forming should be done before soldering.
- Do not apply any bending stress to the base of the lead. The stress to the base may damage the LED's characteristics or it may break the LEDs.
- When mounting the product onto a printed circuit board, the via-holes on the board should be exactly aligned with the lead pitch of the product. If the LEDs are mounted with stress at the leads, it causes deterioration of the cap and this will degrade the LEDs.

Storage

- Shelf life of the products in unopened bag is 3 months(max.) at <30°C and 70% RH from the delivery date.
  If the shelf life exceeds 3 months or more, the LEDs need to be stored in a sealed container with silica gel desiccants to ensure their shelf life will not exceed 1 year.
- Tianhui LED leadframe are gold plated iron alloy.This gold surface may be affected by environments which contain corrosive substances. Please avoid conditions which may cause the LED to corrode, tarnish or discolor.
  This corrosion or discoloration may cause difficulty during soldering operation.
  It is recommended that the LEDs be used as soon as possible.
- To avoid condensation, the products must not be stored in the areas where temperature and humidity fluctuate greatly.

Handling Precautions

- Do not handle LEDs with bare hands, it may contaminate the LED surface and affect optical characteristics.
  In the worst case, catastrophic failure from excess pressu re through wire-bond breaks and package damage may result.
- Dropping the product may cause damage.
- Do not stack assembled PCBs together. Failure to comply can cause the cap portion of the product to be cut, chipped,
  delaminated and/or deformed. It may cause wire to break, leading to catastrophic failures.