

Specification Sheet: Ultra Violet LED Package

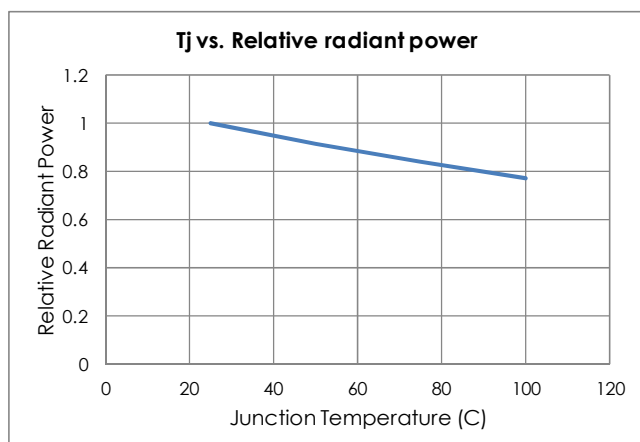
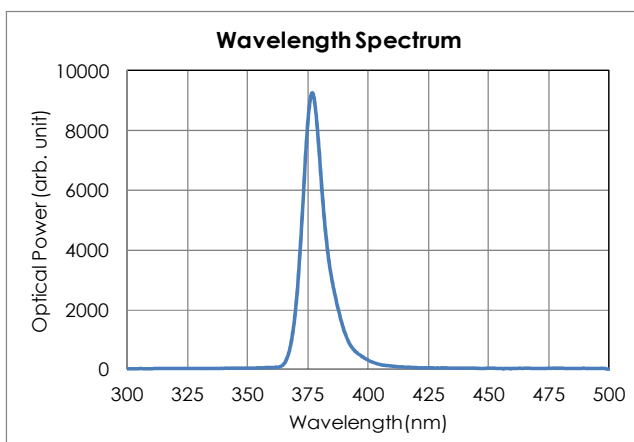
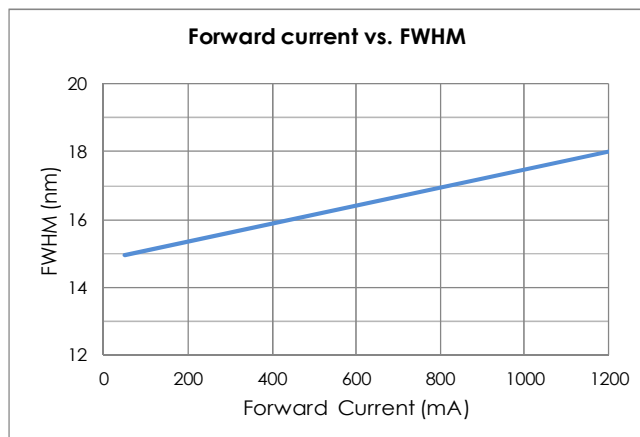
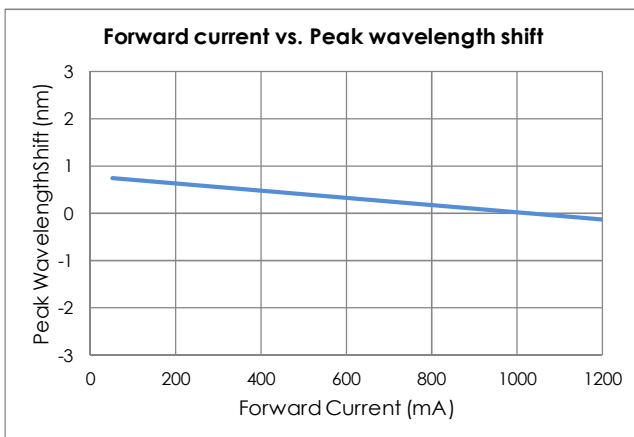
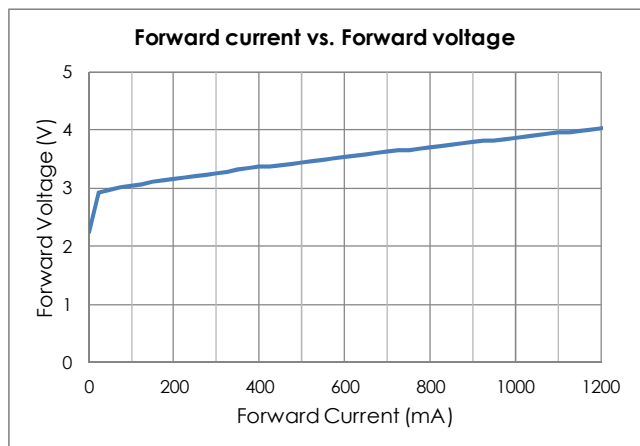
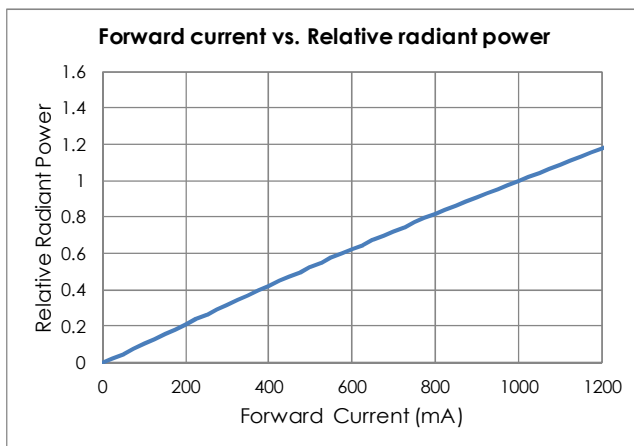
Model: UP3535M1D-S3P35

Type: F4545C1S3

1) Optical and Electrical Characteristics (Ta=25°C)

Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Forward Voltage	VF	If=1A	3.6	4.0	4.4	V
Reverse Voltage	Vr	Ir=-5mA	-	-	7	V
Peak Wavelength	Wp	If=1A	370	-	380	nm
Optical Power	Φ_e	If=1A	Refer to Rank Information			mW
View Angle	$2\theta_{1/2}$	If=1A		120	-	Deg.

*All samples are tested using Soft-epi Standard Metal PCB (25mmx25mm; t=1.7mm).



2) Rank Information (Bin Table)

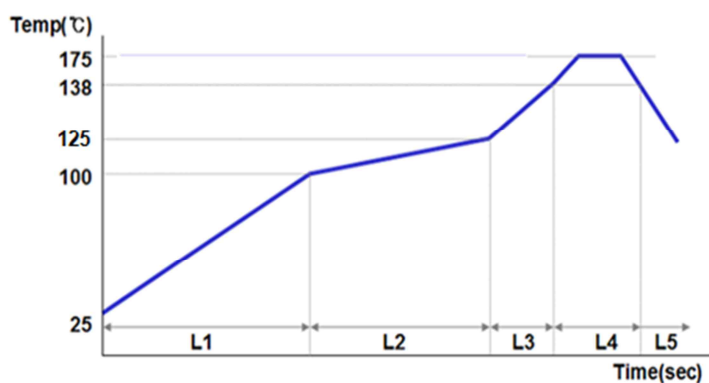
Wp (Peak wavelength)		Po (Optical Power)		Vf (Voltage)	
BIN	nm	BIN	mW	BIN	V
UE	370-375	400	400-600	VD	3.6-3.8
UF	375-380	600	600-800	VE	3.8-4.0
UG	380-385	800	800-1000	VF	4.0-4.2
UH	385-390	1000	1000-1200	VG	4.2-4.4
UJ	390-395	1200	1200-1400		
UK	395-400				
UL	400-405				
UM	405-410				

*The above value of optical power (mW) is not calibrated. This value is depends on the measurement equipment.
The bin table could be changed.

3) Absolute Maximum Ratings (Ta=25°C)

Parameters	Symbol	Maximum Value	Unit
Power dissipation (at room temperature)	P_D	4	W
DC forward current	I_F	1000	mA
Pulse current ; (1/10 duty ratio@1khz)	I_{FP}	1200	mA
Reverse current	$I_r(\text{Max})$	10	uA
Operating temperature	T_{Opr}	-20 ~ +80	°C
Storage temperature	T_{Stg}	-30 ~ +90	°C
Soldering temperature	T_{Sol}	Reflow Soldering : < 175°C /30sec (max)	°C
Chip junction temperature	T_j	115	°C

- Soldering condition



- Low temperature(<175°C) solder paste is recommended.

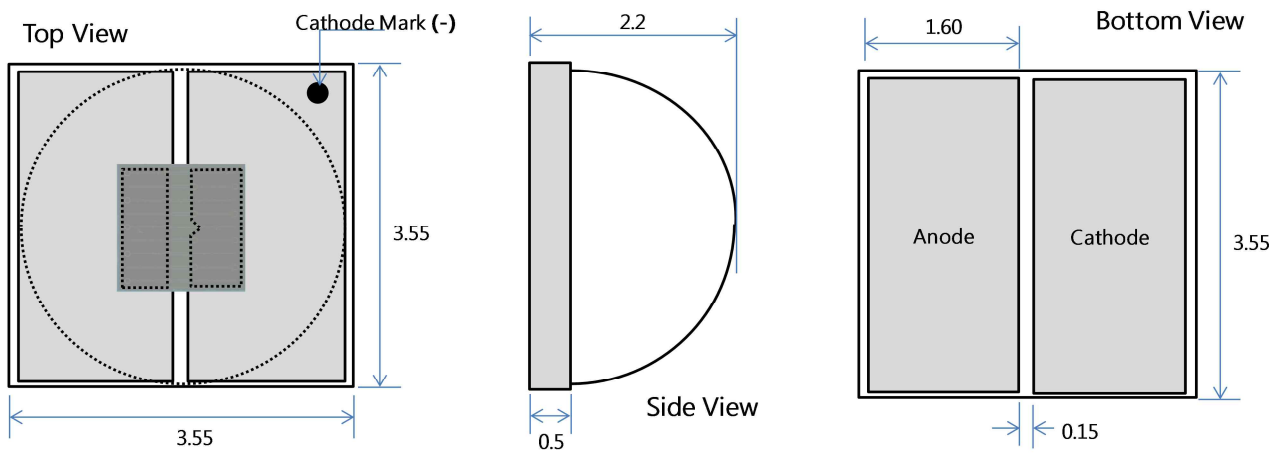
Example: Alpha OM-525 solder (42Sn/57.7Bi/0.2CuX)
138 °C (near eutectic)

Zone	L1	L2	L3	L4	L5	Peak Temp.
Type	Rasing1	Preheating	Rasing2	Soldering	Cooling	1) PCB surface (top/bottom all) : Max 175°C/30sec
Temp(°C)	25-100	100-125	125-138	138-138	Under 138	
Time(sec)	30-60	40-80	50-90	50-90		
°C /sec					within 3~8	

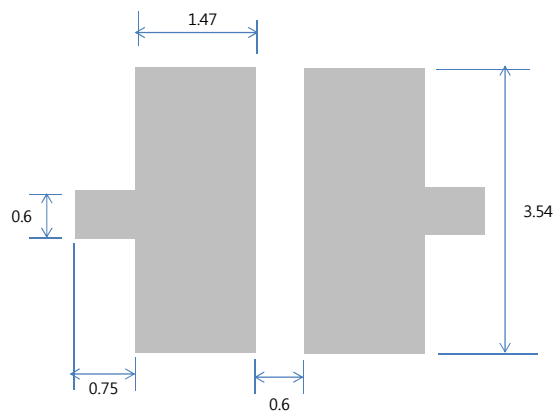
4) Description

- (1) High output Lens type UV LED.
- (2) Compact package outline (LxWxH): 3.55 x 3.55 x 2.2 mm (± 0.2)

4-1) Package Dimension

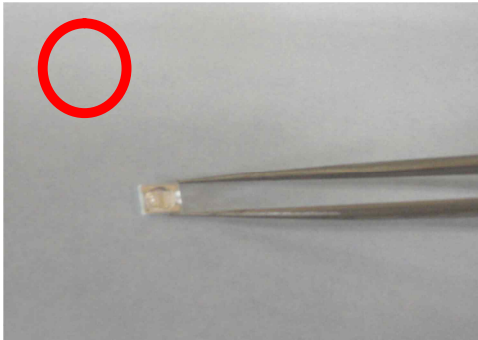
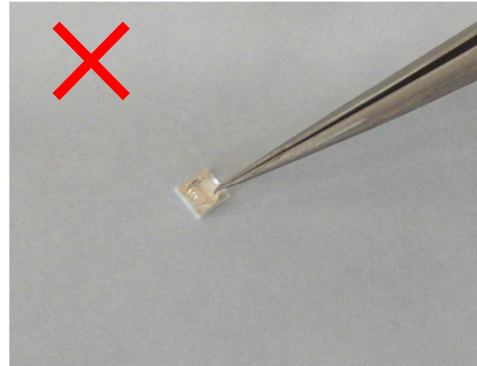


4-2) Recommended PCB pattern



5) Handling Precaution

- Avoid leaving fingerprints or scratches (by sharp tools) on the silicone resin parts.



- Do not touch silicone lens with fingers.
- Do not touch silicone lens with the tweezers.
- The LEDs should only be picked up by making contact with the sides of the LED body.
- **Do not apply mechanical pressure on the surface of the silicon resin.**
- In case of pick-and-place nozzle for surface mount assembly, avoid directly contacting the lens with nozzle.
- Dropping the LEDs may cause damage.
- Do not contaminate emitting surface area of the LEDs.

6) Caution

- LEDs emit very strong UV radiation.
- Don't look directly into the LED light. UV radiation can harm your eyes.
- To prevent even inadequate exposure, wear protective eyewear.
- If LEDs are embedded in devices, please indicate warning labels against the UV light LED used.
- Keep out of reach of children.