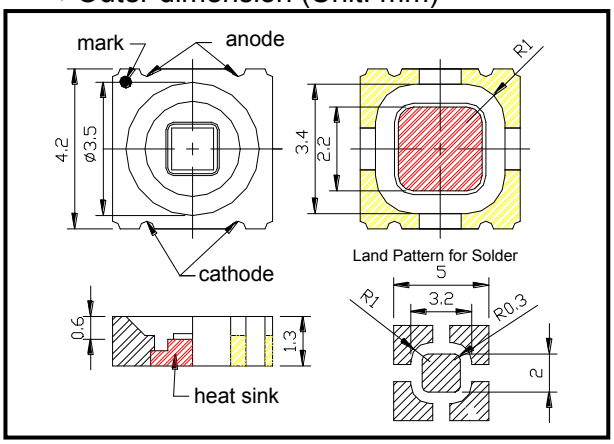
SMCC365-1100 High power UV LED in ceramics SMD

SMCC365-1100 is an AlGaN LED mounted on ceramic package with copper heat sink and is covered with silicone resin. On forward bias, it emits a band of 365nm.
It is 50mW typical of output power and ±60° of viewing half angle.

◆Specifications

1) Product Name	Ceramics SMD UV LED
2) Type No.	SMCC365-1100
3) Chip	
(1) Chip Material	AlGaN
(2) Chip Dimension	1000um*1000um
(3) Peak Wavelength	365nm typ.
4) Package	
(1) Type	Ceramic with Heat sink
(2) Resin Material	Silicone Resin

◆Outer dimension (Unit: mm)



◆Absolute Maximum Ratings

Item	Symbol	Maximum Rated Value	Unit	Ambient Temperature
Power Dissipation	PD	2500	mW	Ta=25°C
Forward Current	IF	500	mA	Ta=25°C
Pulse Forward Current	IFP	700	mA	Ta=25°C
Reverse Voltage	VR	10	V	Ta=25°C
Junction Temperature	TJ	140	°C	
Thermal Resistance	Rthja	6	K/W	
Operating Temperature	TOPR	-30 ~ +130	°C	
Storage Temperature	TSTG	-30 ~ +150	°C	
Soldering Temperature	TSOL	265	°C	

‡Pulse Forward Current condition: Duty=1% and Pulse Width=10us.
‡Soldering condition: Soldering condition must be completed within 3 seconds at 265°C
‡Thermal resistance: junction – mounted on metal block

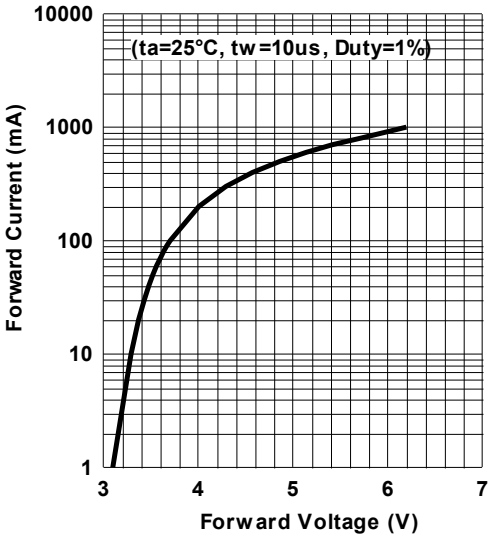
◆Electro-Optical Characteristics [Ta=25°C]

Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Forward Voltage	V_F	I_F=350mA		4.2	5.0	V
Pulsed Forward Voltage	V_{FP}	I_{FP}=0.7A		5.4	6.0	V
Radiated Power	P_O	I_F=350mA		50		mW
Radiant Intensity	Ie	I_F=350mA		7		mW/sr
Peak Wavelength	λ_P	I_F=50mA	360	365	370	nm
Half Width	Δλ	I_F=50mA		16		nm
Viewing Half Angle	θ1/2	I_F=50mA		±60		deg.
Rise Time	tr	I_F=50mA		200		ns
Fall Time	tf	I_F=50mA		150		ns

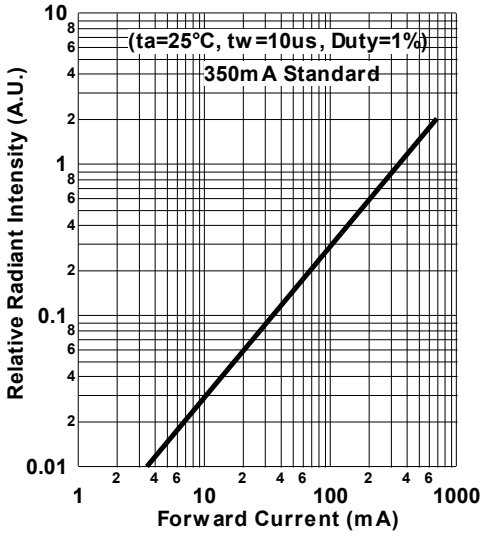
‡Radiated Power is measured by S3584-08.
‡Radiated intensity is measured by Ando Optical Multi Meter AQ2140 & AQ2741

Lead (Pb) Free Product – RoHS Compliant

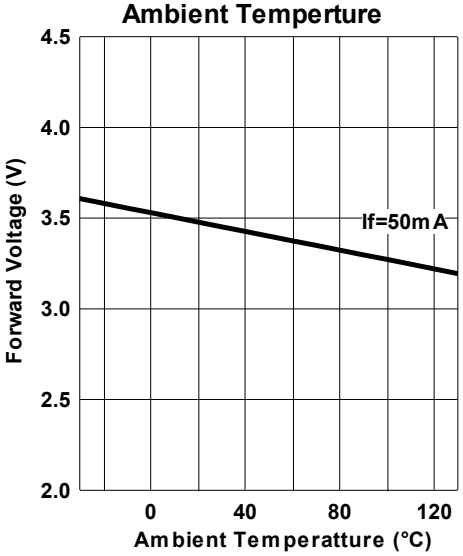
Forward Curent - Forward Voltage



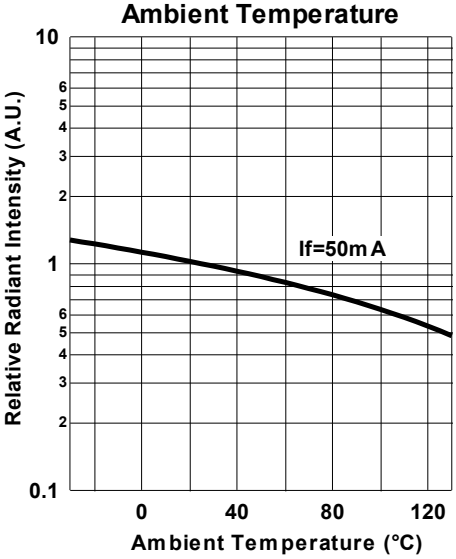
Relative Radiant Intensity - Forward Current



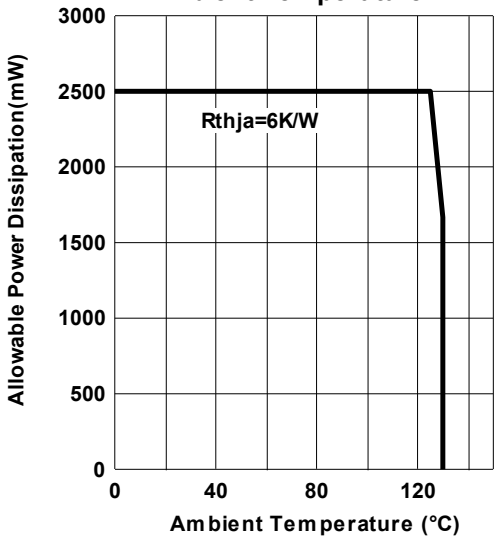
Forward Voltage - Ambient Temperture



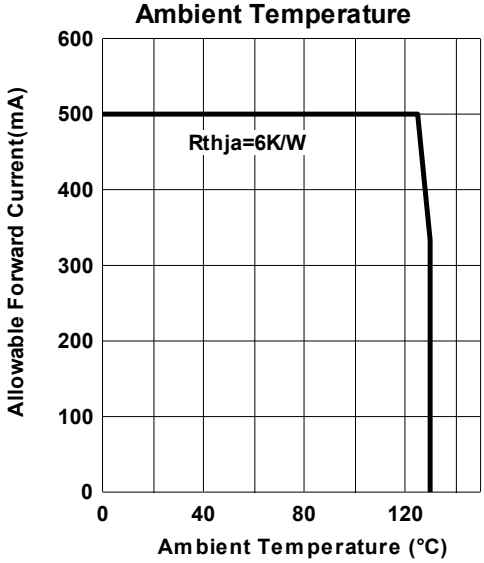
Relative Radiant Intensity - Ambient Temperature



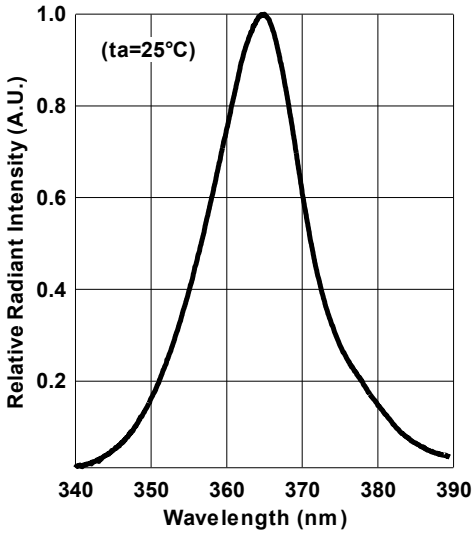
Allowable Power Dissipation - Ambient Temperature



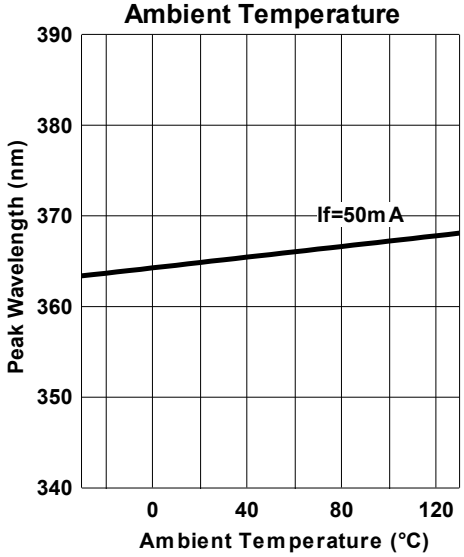
Allowable Forward Current - Ambient Temperature



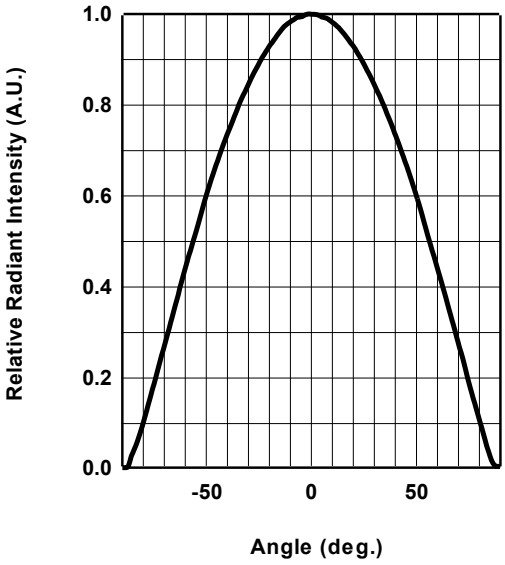
Relative Spectral Emission



Peak Wavelength - Ambient Temperature



Radiation Characteristics



SMD LED STORAGE AND HANDLING PRECAUTIONS

＜Storage Conditions before Opening a Moisture-Barrier Aluminum Bag＞

- Before opening a moisture-barrier aluminum bag, please store it at <30ºC, <60%RH. Please note that the maximum shelf life is 12 months under these conditions.

＜Storage Conditions after Opening a Moisture-Barrier Aluminum Bag＞

- After opening a moisture-barrier aluminum bag, store the aluminum bag and silica gel in a desiccator.
- After opening the bag, please solder the LEDs within 48 hours in a room with 5 - 30ºC, <50%RH.
- Please put any unused, remaining LEDs and silica gel back in the same aluminum bag and then vacuum-seal the bag.
- It is recommended to keep the re-sealed bag in a desiccator at <30%RH.

＜Notes about Re-sealing a Moisture-Barrier Aluminum Bag＞

- When vacuum-sealing an opened aluminum bag, if you find the moisture-indicator of the silica gel has changed to pink from blue (indicating a relative humidity of 30 % or more), please do not use the unused LEDs, the aluminum bag, or the silica gel.

＜Notes about Opening a Re-sealed Moisture-Barrier Aluminum Bag＞

- When opening a vacuumed and re-sealed aluminum bag in order to use the remaining LEDs stored in the bag, if you find that the moisture-indicator of the silica has changed to pink, please do not use the LEDs.

※The 48-hour- long floor life does not include the time while LEDs are stored in the moisture-barrier aluminum bag.

However, we strongly recommend to solder the LEDs as soon as possible after opening the aluminum bag.

The product is manufactured by USHIO Inc. and the spec information is also from USHIO Inc.