

# SMT365R

## UV TOP LED with UV resistant resin

SMT365R consists of an InGaN LED mounted on the lead frame as TOP LED package and is sealed with UV resistant resin.

It emits a spectral band of radiation at 365nm and is designed for long life under UV beam.

### Features

- High Power UV LED
- Peak wavelength typ. 365 nm
- Emission angle  $\pm 45^\circ$

### Applications

- Industrial Sensors.
- UV curing



### Safety Advices

Depending on the application, these devices which emit infrared light may exceed over Accessible Emission Limit and cause the damage to the human eye.

Keep the safety precautions given in IEC 60825-1 and IEC 625471 before using.

### Absolute Maximum Ratings

Item	Symbol	Maximum Rated Value	Unit	Ambient Temperature
Power Dissipation	$P_D$	130	mW	Ta=25°C
Forward Current	$I_F$	30	mA	Ta=25°C
Reverse Voltage	$V_R$	5	V	Ta=25°C
Operating Temperature	$T_{OPR}$	-40 ~ +100	°C	
Storage Temperature	$T_{STG}$	-40 ~ +100	°C	
Soldering Temperature	$T_{SOL}$	265	°C	

‡Soldering condition: Soldering condition must be completed within 3 seconds at 265°C

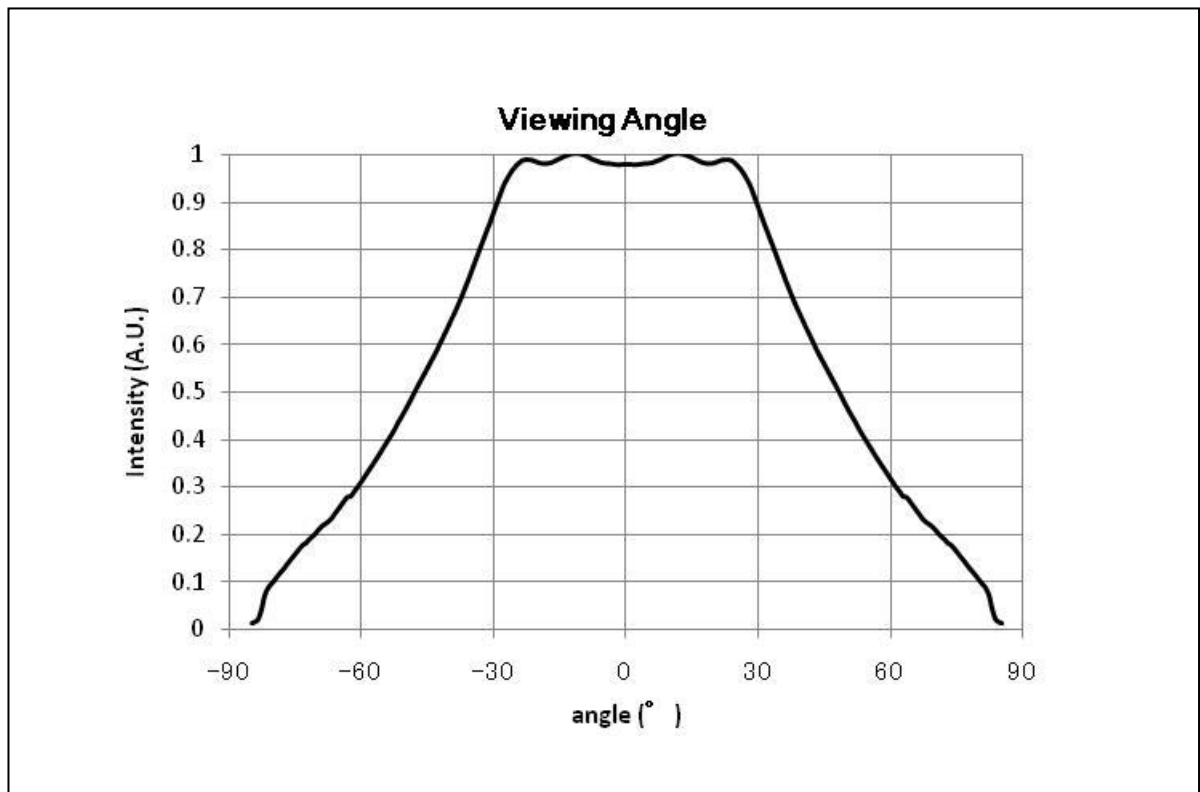
**Electro-Optical Characteristics (Ta=25°C)**

Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Forward Voltage	$V_F$	IF=20mA		3.8	4.3	V
Reverse Current	$I_R$	VR=5V			10	uA
Total Radiated Power	$P_O$	IF=20mA		3		mW
Radiant Intensity	$I_E$	IF=20mA		0.3		mW/sr
Peak Wavelength	$\lambda_P$	IF=20mA	355	365	375	nm
Half Width	$\Delta\lambda$	IF=20mA		15		nm
Viewing Half Angle	$\theta_{1/2}$	IF=20mA		±45		deg.

‡total Radiated Power is measured by S3584-08.

‡Radiant Intensity is measured by Ando Optical Multi Meter AQ2140 & AQ2741.

‡Ando Optical Multi Meter AQ2140 is setted at 400nm range.

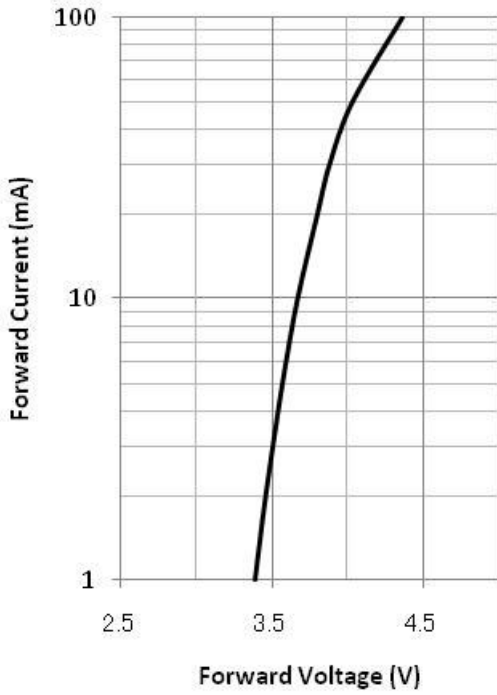


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### Forward current-Forward Voltage

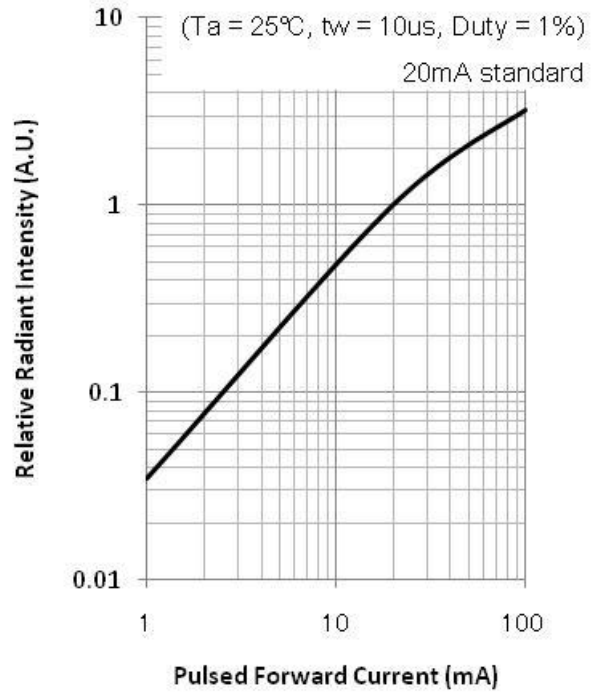
$T_a = 25^\circ\text{C}$ ,  $t_w = 10\mu\text{s}$ , Duty = 1%



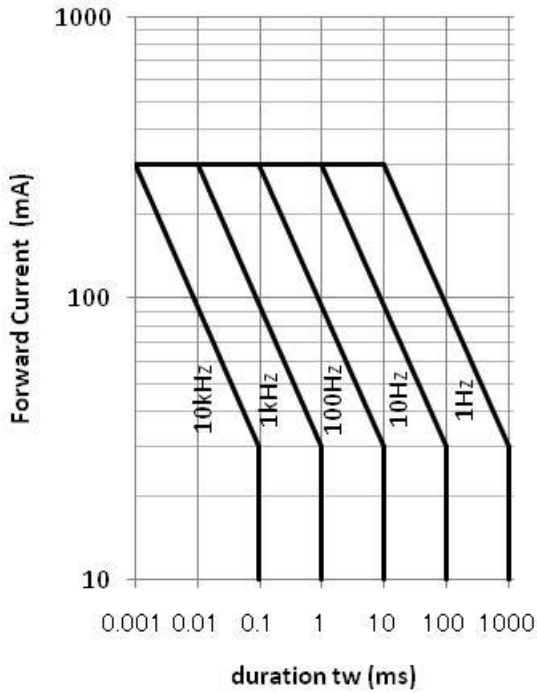
### Relative Radiant Intensity - Pulsed Forward Current

( $T_a = 25^\circ\text{C}$ ,  $t_w = 10\mu\text{s}$ , Duty = 1%)

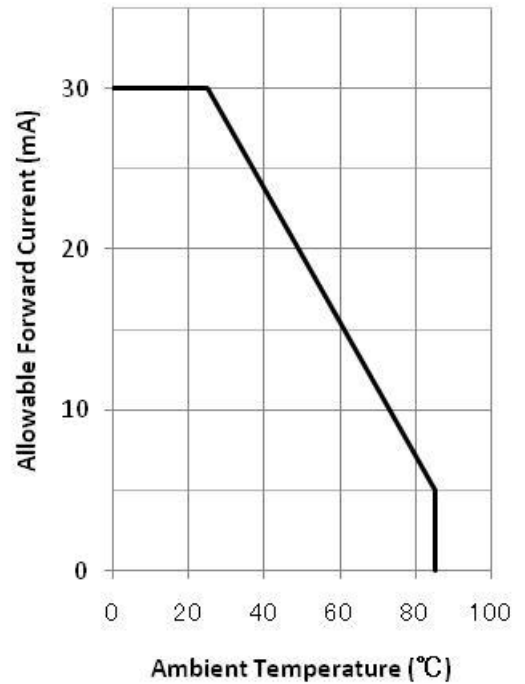
20mA standard



### Forward Current - Pulse Duration



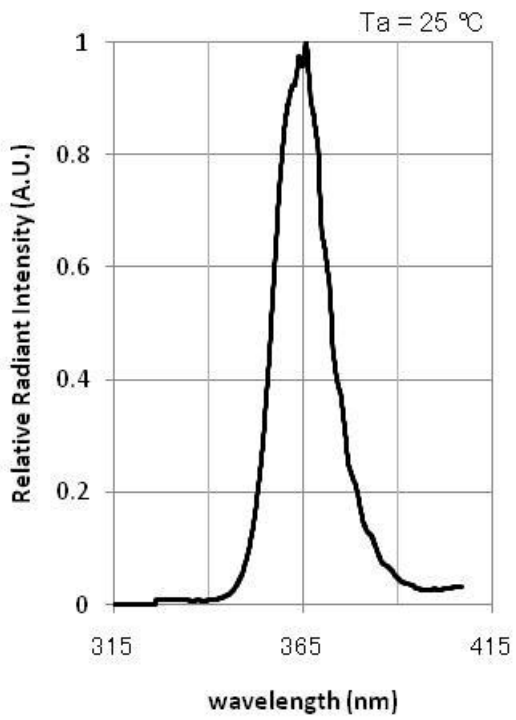
### Allowable Forward Current - Ambient Temperature



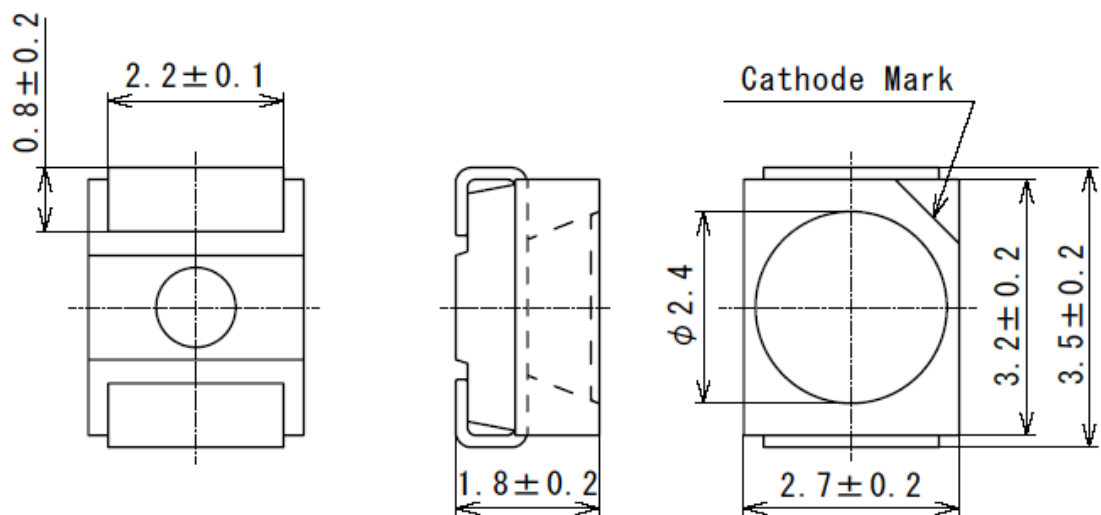
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### Peak Wavelength



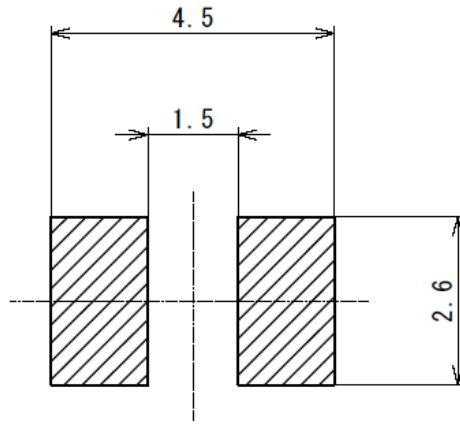
### Outer Dimension (Unit: mm)



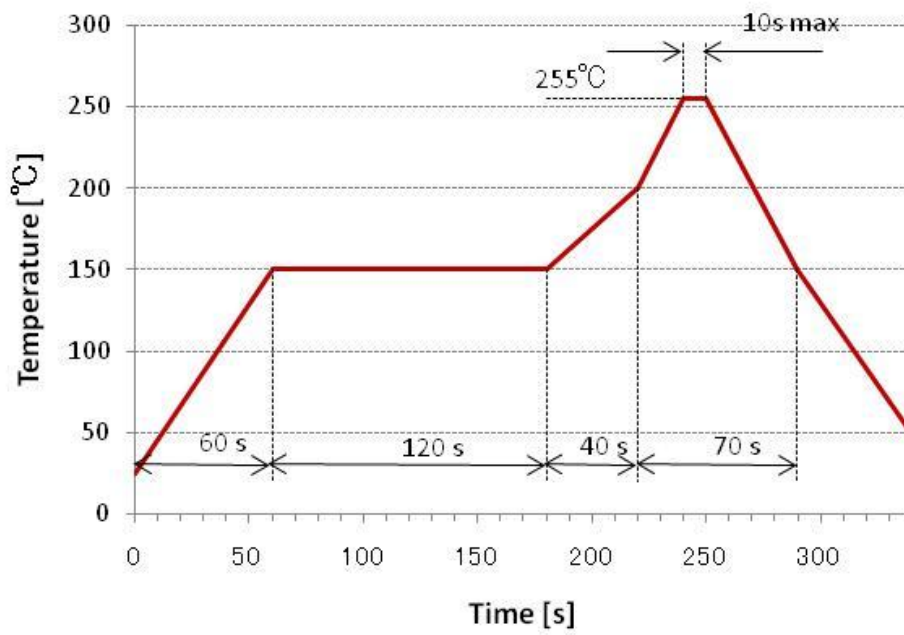
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### Recommended Land Layout (unit: mm)



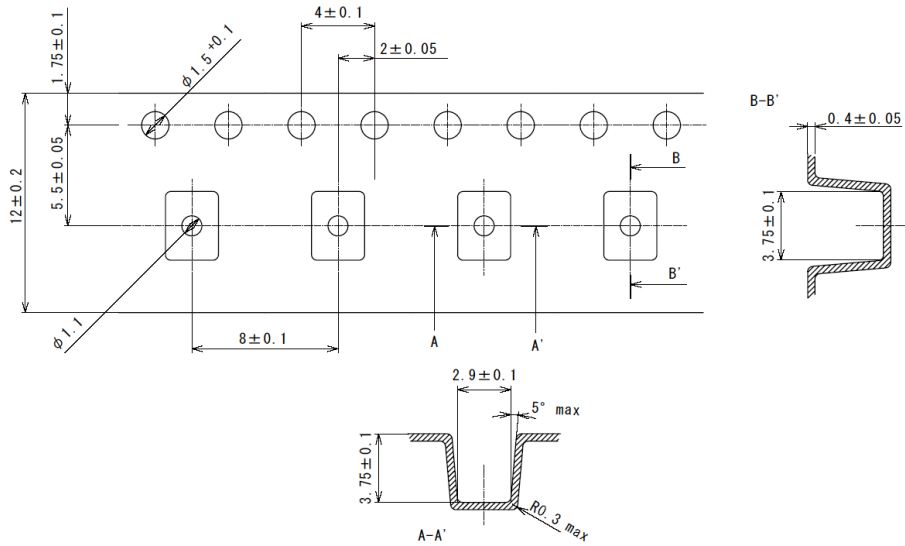
### Soldering Conditions



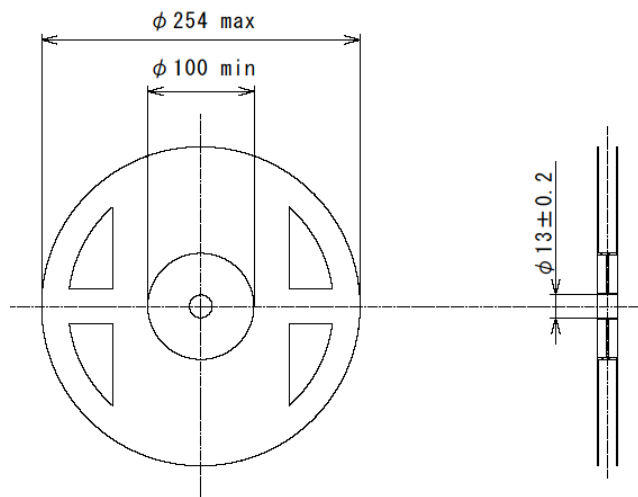
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### SMT Packing Tape Dimensions (Unit: mm)



### SMT Packing Reel Dimensions (Unit: mm)



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