

# SMT415R TOP LED with UV resistant resin

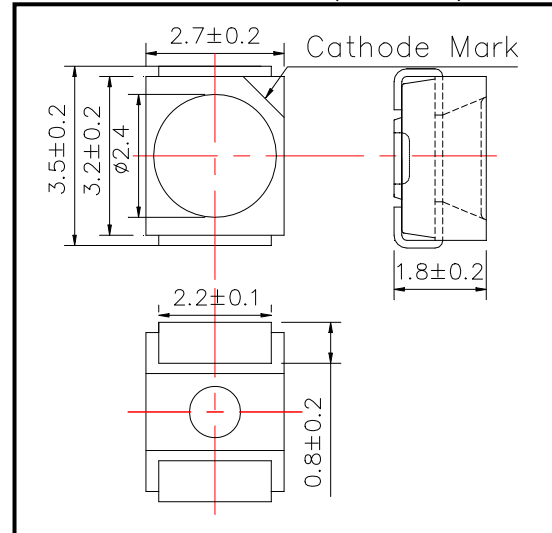
SMT415R consists of an InGaN LED mounted on the lead frame as TOP LED package and is sealed with UV resistant resin.

It emits a spectral band of radiation at 415nm typ.

### ◆ Specifications

1) Product Name	TOP LED
2) Type No.	SMT415R
3) Chip	
(1) Chip Material	InGaN
(2) Peak Wavelength	415nm typ.
4) Package	
(1) Lead Frame Die	Silver Plated
(2) Package Resin	PPA Resin
(3) Lens	UV resistant Resin

### ◆ Outer dimension (Unit: mm)



### ◆ Absolute Maximum Ratings

Item	Symbol	Maximum Rated Value	Unit	Ambient Temperature
Power Dissipation	P <sub>D</sub>	120	mW	T <sub>a</sub> =25°C
Forward Current	I <sub>F</sub>	30	mA	T <sub>a</sub> =25°C
Reverse Voltage	V <sub>R</sub>	5	V	T <sub>a</sub> =25°C
Operating Temperature	T <sub>OPR</sub>	-30 ~ +80	°C	
Storage Temperature	T <sub>STG</sub>	-40 ~ +80	°C	
Soldering Temperature	T <sub>SOL</sub>	250	°C	

‡Soldering condition: Soldering condition must be completed within 5 seconds at 250°C

### ◆ Electro-Optical Characteristics [T<sub>a</sub>=25°C]

Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Forward Voltage	V <sub>F</sub>	I <sub>F</sub> =20mA		3.4	4.0	V
Reverse Current	I <sub>R</sub>	V <sub>R</sub> =5V			10	uA
Total Radiated Power	P <sub>O</sub>	I <sub>F</sub> =20mA	8	12		mW
Radiant Intensity	I <sub>E</sub>	I <sub>F</sub> =20mA		12		mW/sr
Brightness	I <sub>v</sub>	I <sub>F</sub> =20mA		-		mcd
Peak Wavelength	$\lambda_P$	I <sub>F</sub> =20mA	410	415	420	nm
Half Width	$\Delta\lambda$	I <sub>F</sub> =20mA		16		nm
Viewing Half Angle	$\theta_{1/2}$	I <sub>F</sub> =20mA		±45		deg.

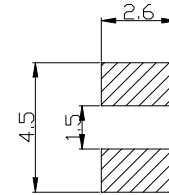
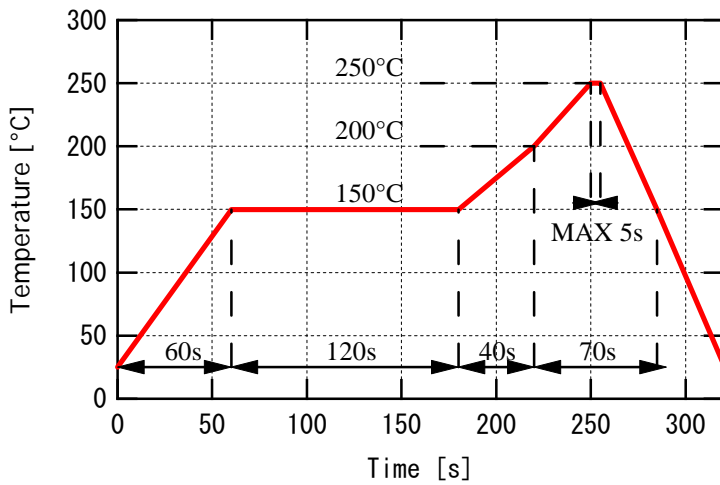
‡Radiated Power is measured by S3584-08.

‡Radiated intensity is measured by Ando Optical Multi Meter AQ2140 & AQ2741

‡Brightness is measured by Tektronix J-16.

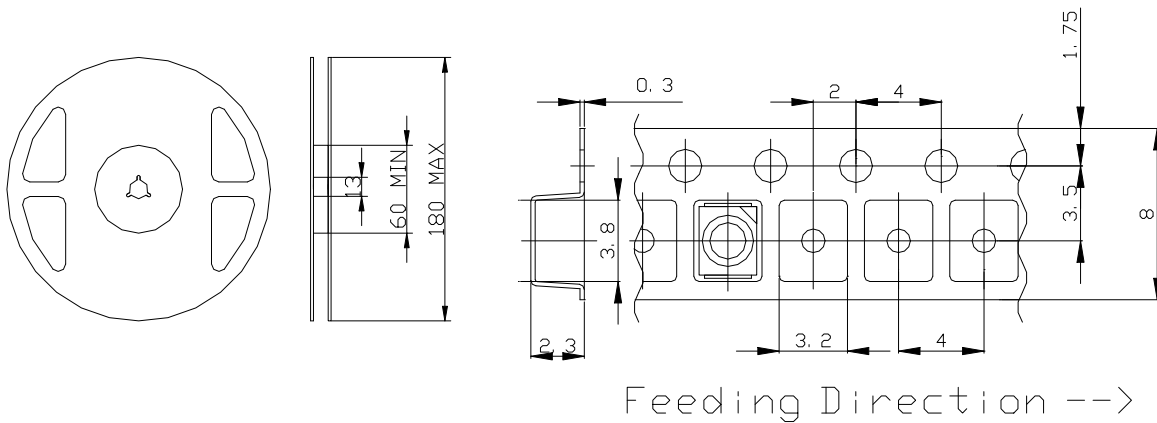
◆ SMD Application  
IR-Reflow Soldering Profile for lead free soldering

Recommended Land Layout (Unit: mm)



Don't put stress on SMD and a circuit board after soldering.

◆ SMD Packing  
Tape and Reel Dimensions (Unit: mm)



◆ Wrapping

Moisture barrier bag aluminum laminated film with a desiccant to keep out the moisture absorption during the transportation and storage.