

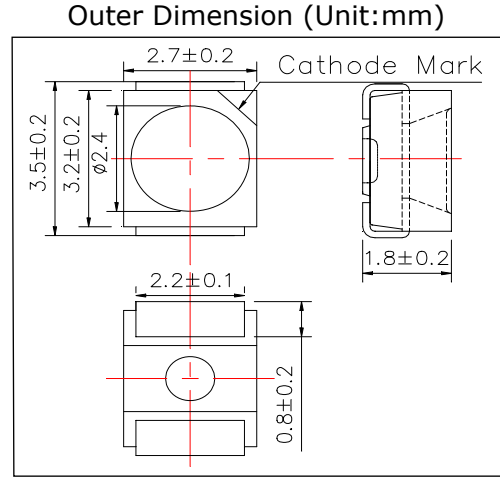
## SMT470-60

### High Power Blue Color TOP LED

SMT470-60 consists of an InGaN LEDs mounted on the lead frame as TOP LED package and is 1100mcd of brightness. It emits a spectral band of radiation at 465nm.

<Specifications>

1. Product Name: TOP LED
2. Type Number: SMT470-60
3. Chip:
  - Chip Material: InGaN
  - 600um x 600um
  - Peak Wavelength: 465nm
4. Package
  - Lead Frame Die: Silver Plated
  - Package Resin: PPA Resin
  - Lens: Epoxy or Silicone Resin



Absolute Maximum Ratings[Ta=25°C]			
Item	Symbol	Maximum Rated Value	Unit
Power Dissipation	PD	250	mW
Forward Current	IF	80	mA
Reverse Voltage	VR	5	V
Operating Temperature	TOPR	-20 ~ +80	°C
Storage Temperature	TSTG	-30 ~ +80	°C
Soldering Temperature*	TSOL	250	°C

\* Soldering condition must be completed within 5 second at 250 °C.

Electro-Optical Characteristics [Ta=25°C]						
Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Forward Voltage	VF	IF=20mA		2.9	3.8	V
	VFP	IF=50mA		3.1	4.3	
Reverse Current	IR	VR=5V			10	uA
Radiated Power*	PO	IF=20mA		22		mW
		IF=50mA		48		
Radiant Intensity**	IE	IF=20mA		6.5		mW/sr
		IF=50mA		14		
Brightness***	IV	IF=20mA		500		mcd
		IF=50mA		1100		
Peak Wavelength	λP	IF=20mA	455	465	475	nm
Dominant wavelength	λD	IF=20mA		468		nm
Half Width	Δλ	IF=20mA		20		nm
Viewing Half Angle	θ1/2	IF=20mA		±55		deg

\* Measured by S3584-08

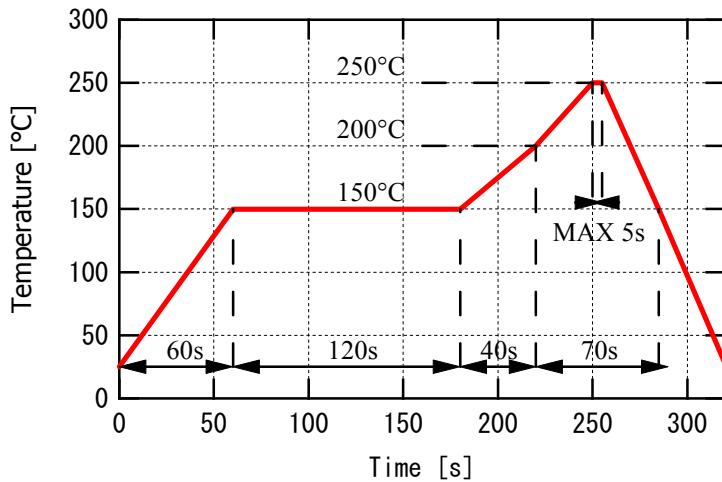
\*\* Measured by Tektronix J-6512

\*\*\* Measured by Tektronix J-16

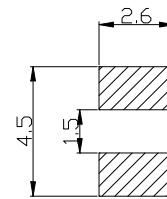


**SMD Application**

IR-Reflow Soldering Profile for lead free soldering



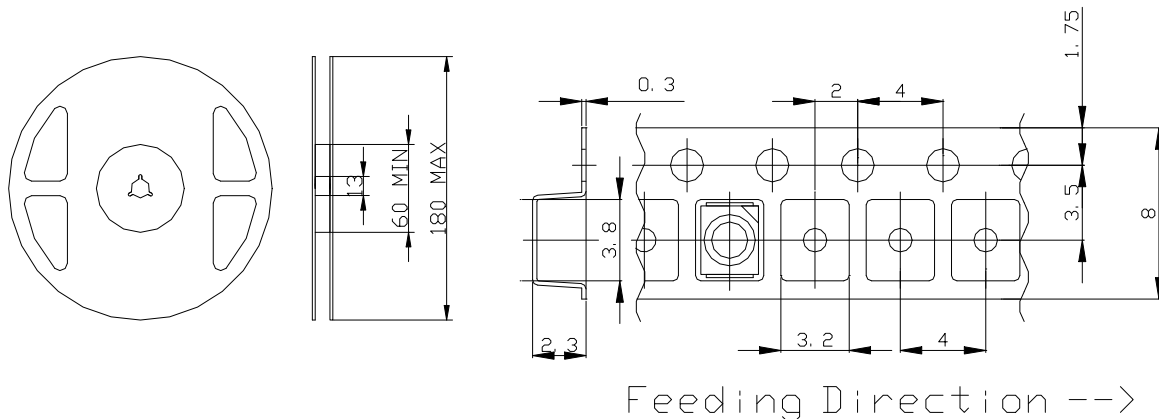
Recommended Land Layout (Unit: mm)



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

**SMD Packing**

Tape and Reel Dimensions (Unit: mm)



Feeding Direction -->

**Wrapping**

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

## 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 <30°C, <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 72 hours in a room with 5 - 30°C, <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 72-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.