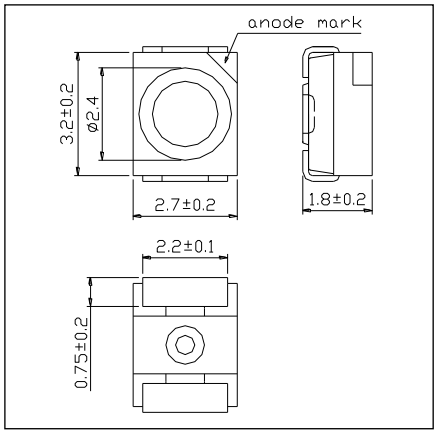
SMT670D

High Performance Red Color Infrared TOP LED

SMT670D consists of an AlGaInP LED mounted on the lead frame as TOP LED package and is 31mW typical of output power and 750mcd of Brightness.
It emits a spectral band of radiation at 670nm.

Outer Dimension (Unit:mm)



<Specifications>

1. Product Name: TOP LED
2. Type Number: SMT670D
3. Chip:
   - Chip Material: AlGaInP
   - Chip Dimension: 0.35mm x 0.35mm
   - Peak Wavelength: 670nm
4. Package
   - Lead Frame Die: Silver Plated
   - Package Resin: PPA Resin
   - Lens: Epoxy Resin

Absolute Maximum Ratings				
Item	Symbol	Maximum Rated Value	Unit	Ambient Temperature
Power Dissipation	PD	120	mW	Ta=25℃
Forward Current*	IF	50	mA	Ta=25℃
Reverse Voltage	VR	5	V	Ta=25℃
Operating Temperature	TOPR	-40 ~ +80	℃	
Storage Temperature	TSTG	-40 ~ +80	℃	
Soldering Temperature**	TSOL	250	℃	

* Duty=1% and Pulse Width=10us

** Soldering condition must be completed within 5 second at 250℃.

Electro-Optical Characteristics[Ta=25℃]						
Item	Symbol	Condition	Min	Typ	Max	Unit
Forward Voltage	VF	IF=20mA		2.0	2.2	V
		IF=50mA		2.2	2.4	
Total Radiated Power*	PO	IF=20mA	9.0	12.0		mW
		IF=50mA		31.0		
Radiant Intensity**	IE	IF=20mA		4.0		mW/sr
		IF=50mA		11.0		
Brightness	Iv	IF=20mA		300		mcd
		IF=50mA		750		mlm
Peak Wavelength	λP	IF=50mA	665	670	675	nm
Half Width	Δλ	IF=50mA		16		nm
Viewing Half Angle	θ1/2	IF=50mA		±63		deg

* Measured by Photodyne #500

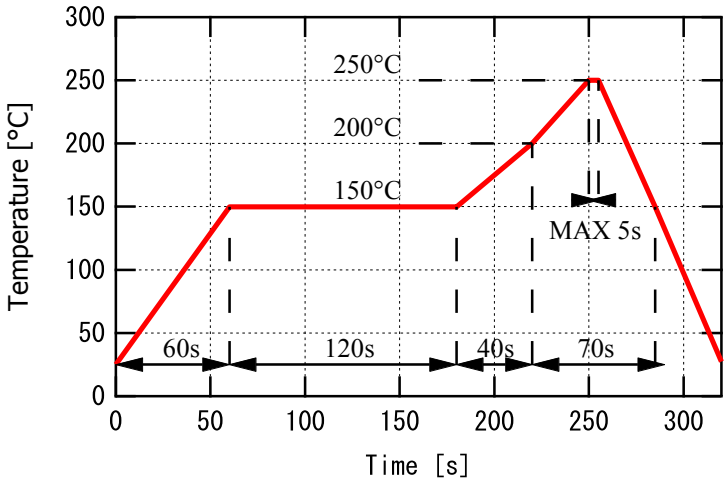
** Measured by Tektronix J-6512

RoHS Compliant

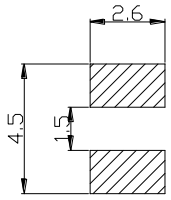
Marubeni America Corporation | 3945 Freedom Circle, Suite 1000, Santa Clara, CA95054
Tel: 408-330-0650 | Fax: 408-330-0655 | Email: sales@tech-led.com

SMD Application

IR-Reflow Soldering Profile for lead free soldering



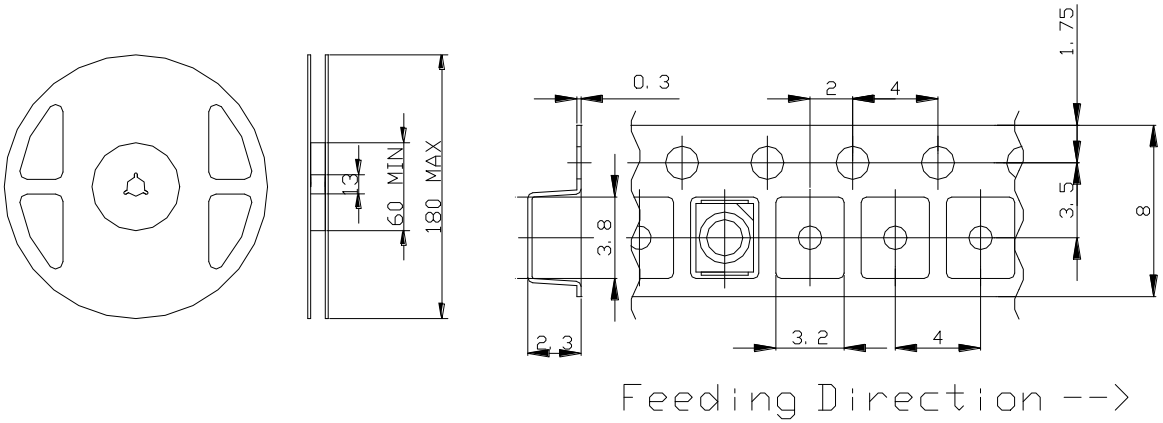
recommended Land Layout (Unit: mm)



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.

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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 <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 72 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.

- 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

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.

Disclaimer

Product specifications and data shown in this product catalog are subject to change without notice for the purposes of improving product performance, reliability, design, or otherwise.

Product data and parameters in this catalog are typical values based on reasonably up-to-date measurements. Product data and parameters may vary by user application and over time.

Products shown in this catalog are intended to be used for general electronic equipment. Products are not guaranteed for applications where product malfunction or failure may cause personal injury or death, including but not limited to life-supporting / saving devices, medical devices, safety devices, airplanes, aerospace equipment, automobiles, traffic control systems, and nuclear reactor control systems.