

3528 SMD Chip LED - Orange multicomp^{PRO}

**RoHS
Compliant**



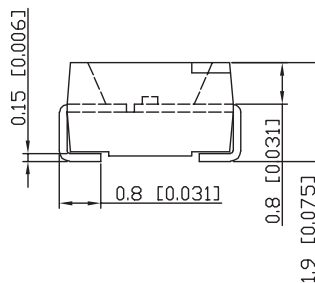
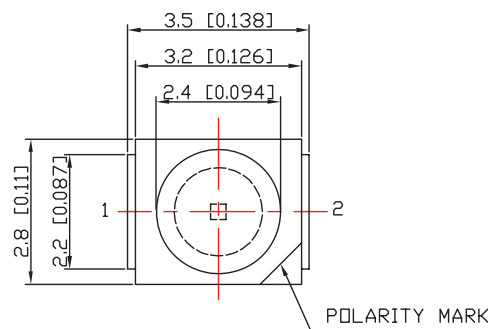
Features

- 3.5mm × 2.8mm SMT LED, 1.9mm Thickness.
- Wide Viewing Angle.
- Ideal For Backlight And Indicator.

Applications

- Automotive: Backlighting in dashboard and switch.
- Telecommunication: Indicator and Backlighting in telephone and fax.
- Flat Backlight for LCD switch and symbol.

Package Dimensions



Dimensions : Millimetres

Notes

1. All dimensions are in millimeters.
2. Tolerance is ± 0.25 unless otherwise noted.
3. Specifications are subject to change without notice.

Device Selection Guide

Part No.	Chip		Lens Colour
	Material	Emitted Colour	
MP007082	(InGaAlP)	Orange	Water Clear

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Absolute Maximum Ratings at TA=25°C

Parameter	Symbol	Value	Unit
Power Dissipation	P _D	62	mW
Forward Current	I _F	25	mA
Peak Forward Current*1	I _{FP}	100	mA
Reverse Voltage	V _R	5	V
Operating Temperature	T _{opr}	-40°C To +85°C	
Storage Temperature	T _{stg}	-40°C To +85°C	

Notes:

*1: Pulse width≤0.1ms, Duty cycle≤1/10

Electrical / Optical Characteristics at TA=25°C

Parameter	Symbol	Min.	Typ.	Max	Unit	Test Conditions
Forward Voltage	V _F	1.8	—	2.6	V	I _F =20mA
Reverse Current	I _R	—	—	10	μA	V _R =5V
Dominant Wavelength	λ _D	601	—	613	nm	I _F =20mA
Luminous Intensity	I _v	500	—	1400	mcd	I _F =20mA
Viewing Angle	2θ _{1/2}	—	120	—	Deg.	I _F =20mA

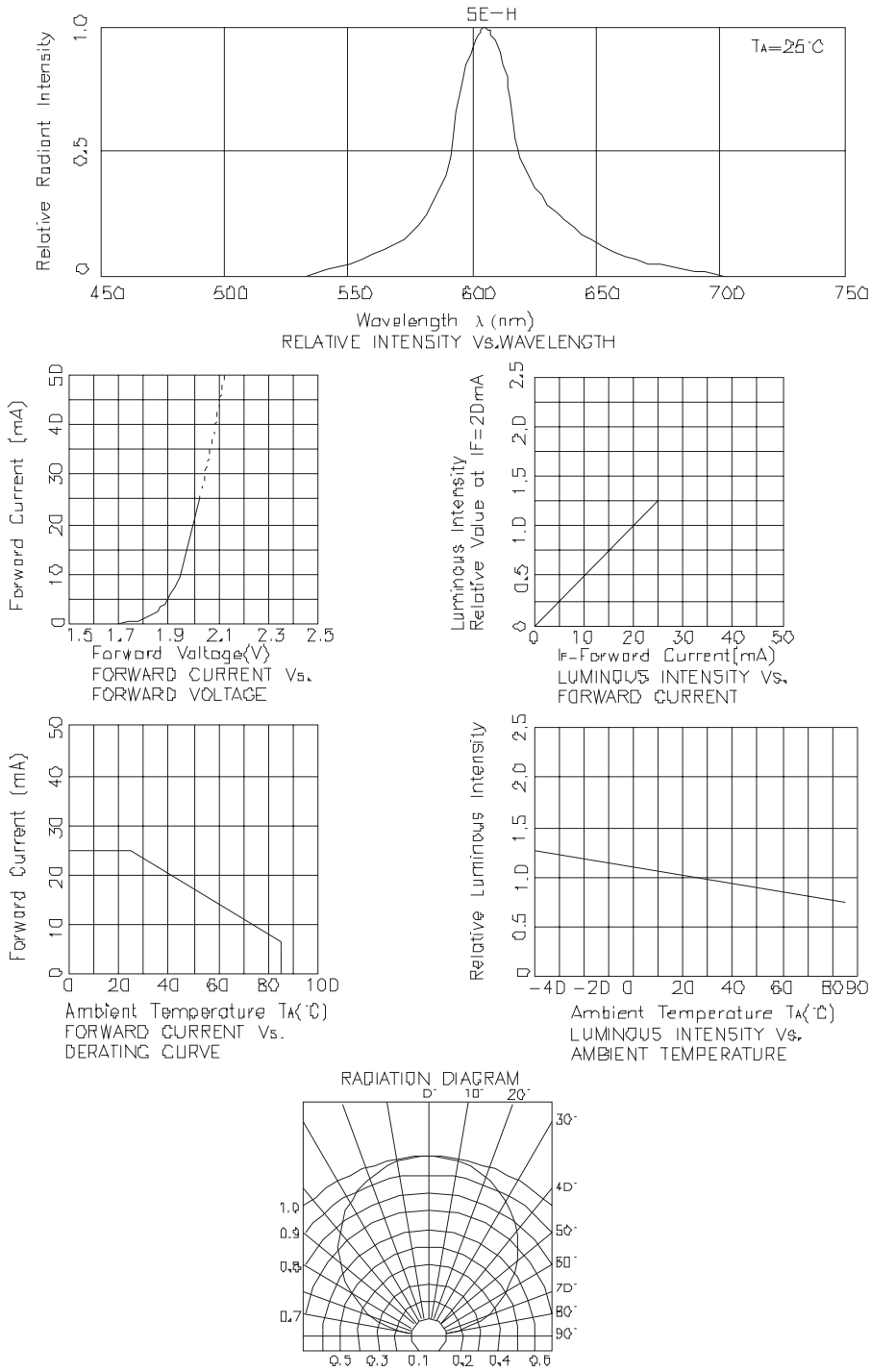
Remarks:

If special sorting is required (e.g. binning based on forward voltage, luminous intensity, or chromaticity), the typical accuracy of the sorting process is as follows:

1. wavelength: ±1nm
2. Luminous Intensity: ±15%
3. Forward Voltage: ±0.1V

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Typical Electrical/Optical Characteristics Curves



Dimensions : Millimetres

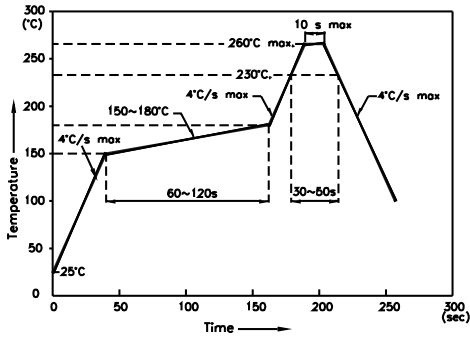
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Soldering Profile

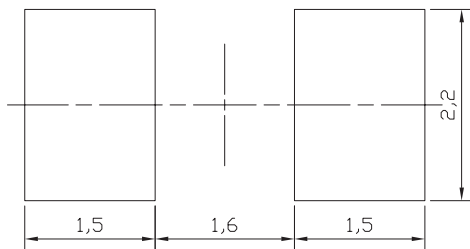
Reflow Soldering Profile For Lead-free SMT Process.



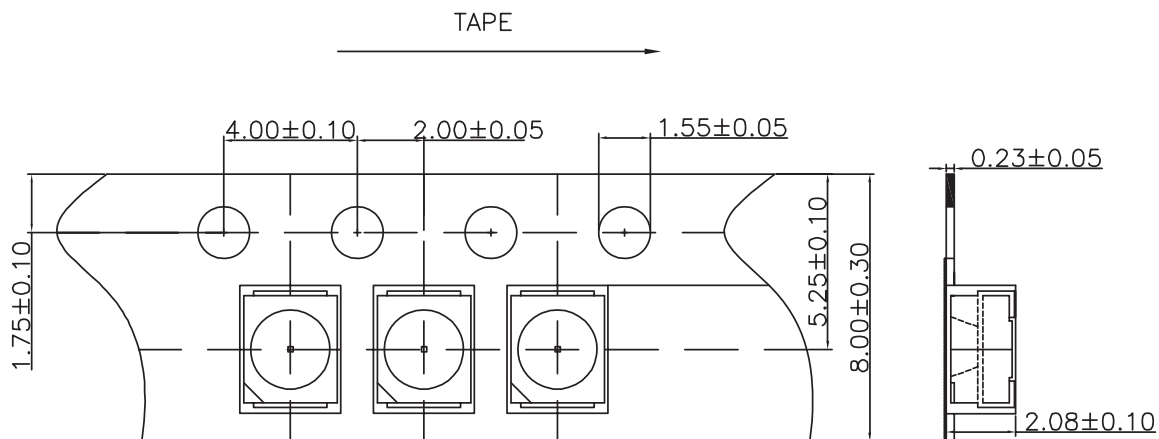
Notes

1. We recommend the reflow temperature 245°C. ($\pm 5^\circ\text{C}$) The maximum soldering temperature should be limited to 260°C.
2. Don't cause stress to epoxy resin while it is exposed to high temperature.
3. Number of reflow process shall be 2 times or less.

Recommended soldering pattern



Tape specifications



Dimensions : Millimetres

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Storage

- Storage condition before opening the package: 5°C to 30°C, the largest percentage relative humidity is 60% and the storage period is one month. The LEDs beyond the storage period just can be used after dealing as step 4.
- After opening the package, If the LEDs will be Infrared reflow soldering, Oxygen phase reflow soldering or any other welding.
 - a. must be welding within 24 hours.
 - b. the storage humidity must be below 30% .
- If the situation does not satisfy 2a or 2b, the LEDs must be roasted.
- If the LEDs need to be roasted, the roast temperature should be 60°C+/-3 and the roast timeshould be 48 hours.

ESD (Electrostatic Discharge)

Static Electricity or power surge will damage the LED.

The following procedures may decrease the possibility of ESD damage.

- All production machinery and test instruments must be electrically grounded.
- Use a conductive wrist band or anti-electrostatic glove when handling these LEDs.
- Maintain a humidity level of 50% or higher in production areas.
- Use anti-static packaging for transport and storage.

Cleaning

- Led should be cleaned in a normal temperature and the time for cleaning should be less than 3 minutes; please use Alcohol as cleaner ,before you use other cleaning solvent ,please make sure that the cleaner will not make any damage to the LED performance or the appearance .
- Ultrasonic Cleaning is also commonly used for cleaning LED , please verify the Ultrasonic cleaning's Power and time to avoid any damage to the LED.

Part Number Table

Description	Part Number
SMD LED, Orange, 120°, 1400mcd, 3.5mm x 2.8mm	MP007082

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