

# SML1206-5VR3K-TR

Super Red

Surface Mount LED

3.2 × 1.6 × 1.1 mm Chip LED

120° viewing angle

DWG BY:  
KB / GP  
03-31-11

CHK BY:  
PL  
03-31-11

REVISION LTR: PRELIMINARY  
03-31-11

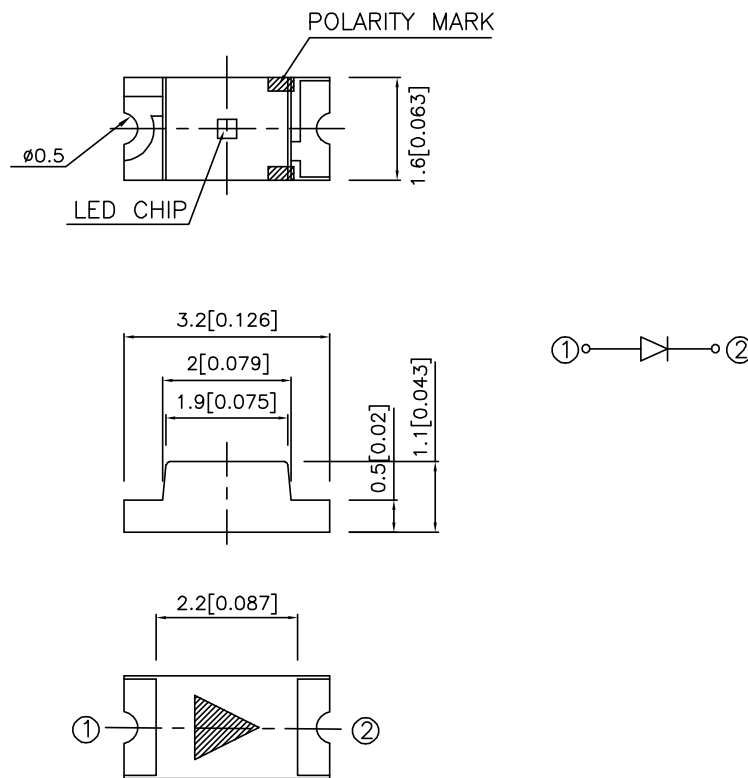
**Features**

- 3.2X1.6mm SMT LED, 1.1mm THICKNESS.
- LOW POWER CONSUMPTION.
- WIDE VIEWING ANGLE.
- IDEAL FOR BACKLIGHT AND INDICATOR.
- VARIOUS COLORS AND LENS TYPES AVAILABLE.
- PACKAGE: 2000PCS / REEL .
- MOISTURE SENSITIVITY LEVEL : LEVEL 3.
- 5V INTERNAL RESISTOR.
- RoHS COMPLIANT.

**Description**

The Super Bright Red source color devices are made with Gallium Aluminum Arsenide Red Light Emitting Diode.

**Package Dimensions**



Notes:  
 1. All dimensions are in millimeters (inches).  
 2. Tolerance is  $\pm 0.2(0.008)$  unless otherwise noted.  
 3. Specifications are subject to change without notice.

### Selection Guide

Dice	Lens Type	Iv (mcd) [2] @ V=5V		Viewing Angle [1]
		Min.	Typ.	θ1/2
SUPER BRIGHT RED (GaAlAs)	WATER CLEAR	28	70	120°

Notes:

- θ1/2 is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.
- Luminous Intensity / Luminous Flux: +/-15%.

### Electrical / Optical Characteristics at TA=25°C

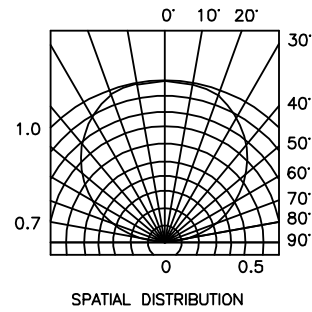
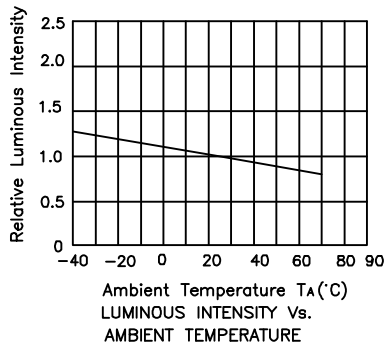
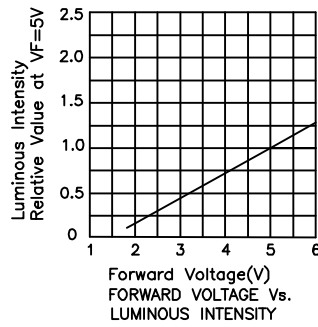
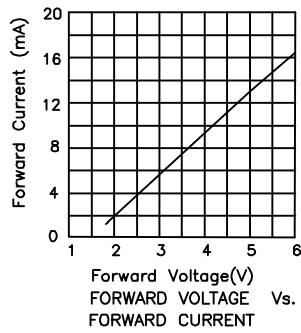
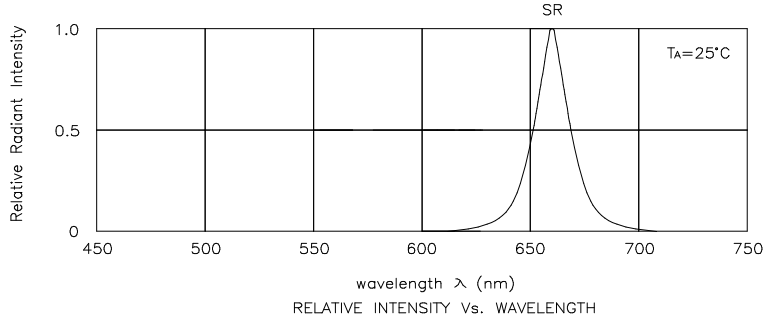
Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
$\lambda_{peak}$	Peak Wavelength	Super Bright Red	660		nm	V <sub>F</sub> =5V
$\lambda_D$ [1]	Dominant Wavelength	Super Bright Red	640		nm	V <sub>F</sub> =5V
$\Delta\lambda$ 1/2	Spectral Line Half-width	Super Bright Red	20		nm	V <sub>F</sub> =5V
I <sub>F</sub>	Forward Current	Super Bright Red	13	17.5	mA	V <sub>F</sub> =5V
I <sub>R</sub>	Reverse Current	Super Bright Red		10	uA	V <sub>R</sub> = 5V
x	Chromaticity Coordinates	Super Bright Red	0.			V <sub>R</sub> = 5V
y			0.			

Note:

- Wavelength: +/-1nm.

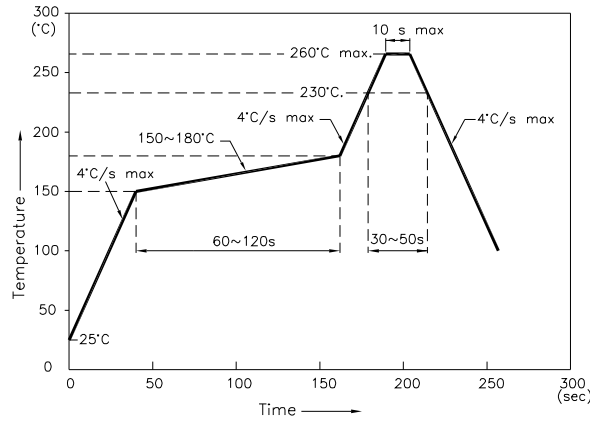
### Absolute Maximum Ratings at TA=25°C

Parameter	Super Bright Red	Units
Power dissipation	85	mW
Forward Voltage	6	V
Reverse Voltage	5	V
Operating Temperature	-40°C To +70°C	
Storage Temperature	-40°C To +85°C	



Downloaded from [Elcodis.com](http://Elcodis.com) electronic components distributor

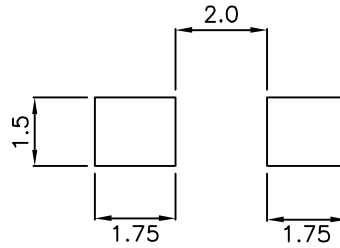
Reflow Soldering Profile For Lead-free SMT Process.



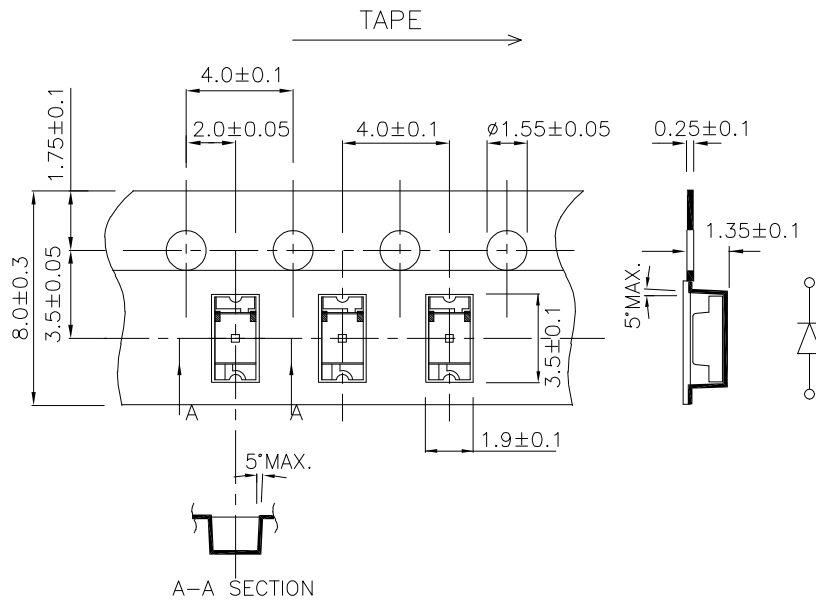
NOTES:

1. We recommend the reflow temperature 245°C(+/-5°C). The maximum soldering temperature should be limited to 260°C.
2. Don't cause stress to the epoxy resin while it is exposed to high temperature.
3. Number of reflow process shall be 2 times or less.

**Recommended Soldering Pattern  
 (Units : mm)**



**Tape Specifications  
 (Units : mm)**



Note: Tolerance is ±0.25 unless otherwise noted.