LEDTRONICS, INC.®

23105 Kashiwa Court, Torrance, CA 90505
Phone: (800) 579-4875 or (310) 534-1505 Fax: (310) 534-1424
E-mail: webmaster@ledtronics.com
Website: http://www.ledtronics.com

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

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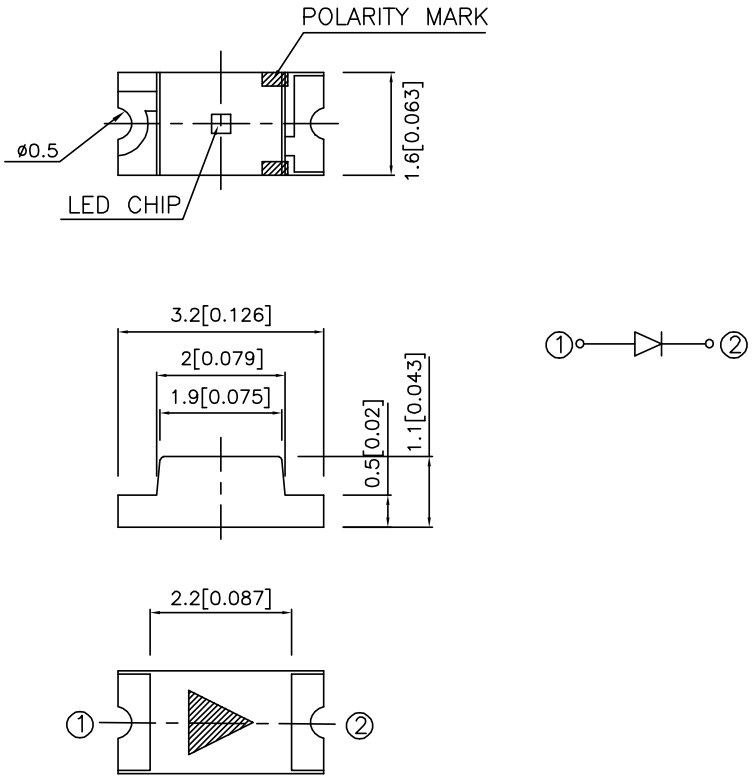
Features

- ●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 ±0.2(0.008") unless otherwise noted.
3.Specifications are subject to change without notice.

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Selection Guide

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

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

Electrical / Optical Characteristics at T_A=25℃

Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
λpeak	Peak Wavelength	Super Bright Red	660		nm	V_F=5V
λD [1]	Dominant Wavelength	Super Bright Red	640		nm	V_F=5V
Δλ1/2	Spectral Line Half-width	Super Bright Red	20		nm	V_F=5V
I_F	Forward Current	Super Bright Red	13	17.5	mA	V_F=5V
I_R	Reverse Current	Super Bright Red		10	uA	V_R= 5V
x	Chromaticity Coordinates	Super Bright Red	0.			V_R= 5V
y			0.			

Note:
1.Wavelength: +/-1nm.

Absolute Maximum Ratings at T_A=25℃

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

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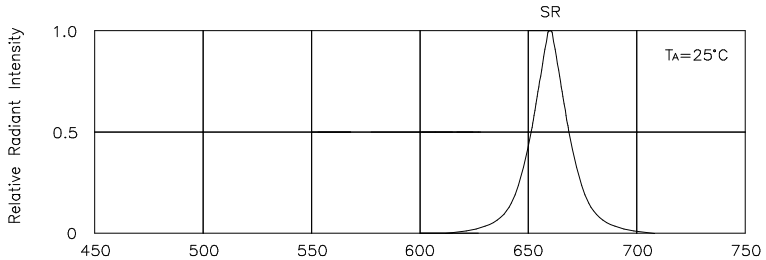
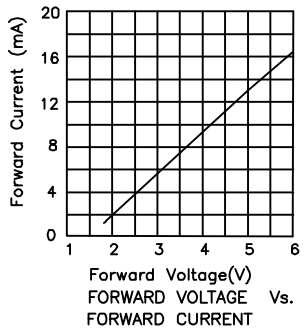
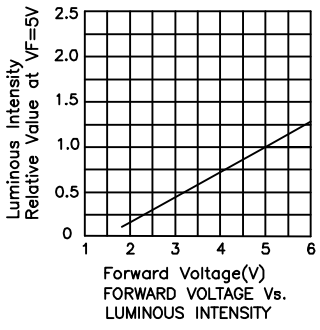


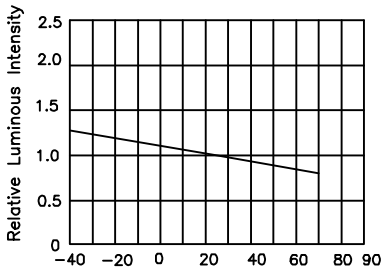
RELATIVE INTENSITY Vs. WAVELENGTH



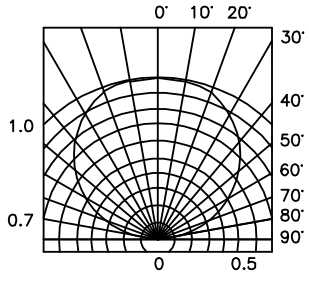
FORWARD VOLTAGE Vs.
FORWARD CURRENT



FORWARD VOLTAGE Vs.
LUMINOUS INTENSITY



LUMINOUS INTENSITY Vs.
AMBIENT TEMPERATURE



SPATIAL DISTRIBUTION

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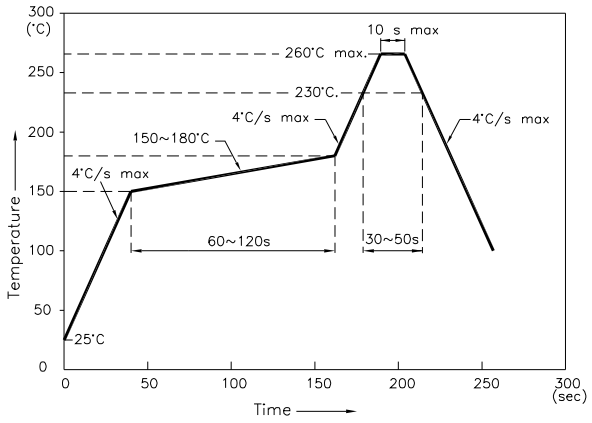
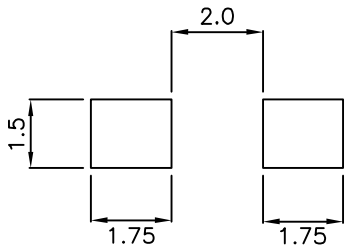
Reflow Soldering Profile For Lead-free SMT Process.

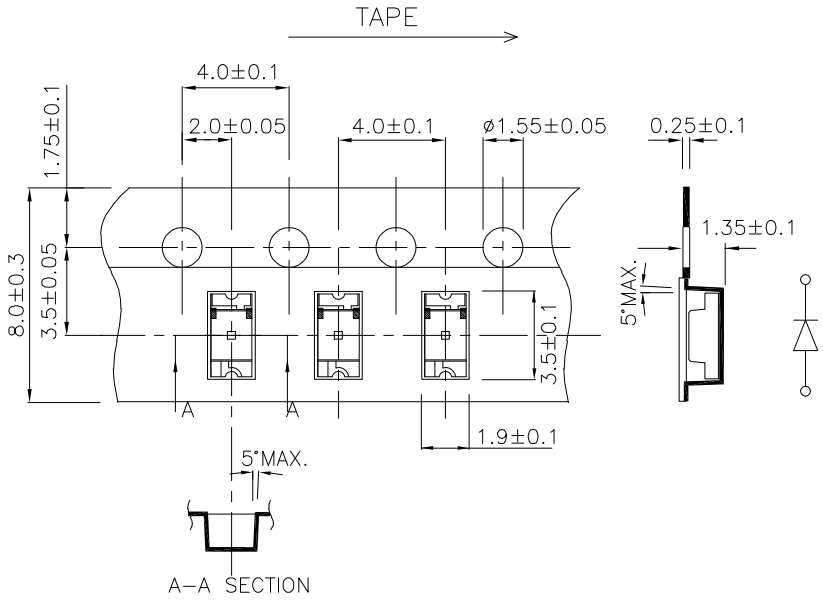


NOTES:
1. We recommend the reflow temperature 245°C(+/-5°C).The maximum soldering temperature should be limited to 260°C.
2. Don't cause stress to the epoxy resin while it is exposed to high temperature.
3. Number of reflow process shall be 2 times or less.

Recommended Soldering Pattern
(Units : mm)



Tape Specifications
(Units : mm)



Note: Tolerance is ±0.25 unless otherwise noted.