

Customer Part No:

Part No: 5252WRGB-L preliminary

VZDP52AWRGBF00Z4

Specification:

Documents No:

Prepared By: Alex Hsieh / Time: 2013/06/17

Checked By: Kiwi Liao / Time: 2013/06/17

Customer Confirmation:

FEATURES

- § Forward maximum pulse current 700mA/per chip
- § Wide viewing angle: Typ.120°
- § Operating temperature -30~80°C
- § Storage temperature-40~100°C
- § ROHS -compliant
- § Qualified according to JEDEC moisture Level 2

CATALOG

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➤ **PART NUMBER TABLE**

Substrate	Color	Emitter
ALN	W/R/G/B	

5252DP

■ **Flux Characteristics**

Rated Current	Color	Luminous Flux @ If=350mA (lm)			Viewing Angle
		Min	Typ	Max	
350mA	White	---	120	---	120
350mA	Red	---	65	---	120
350mA	Green	---	110	---	120
350mA	Blue	---	24	---	120

Note:1. Luminous intensity (lv) ±5%, Viewing angle(2θ1/2) ±5%/

2. IS standard testing

3. Electrical-Optical Characteristics (Ta=25°C)

■ **Electrical Characteristics at Ta = 25°C.**

Rated Current	Color	Vf @ If=350mA	
		Typ. (V)	Max. (V)
350mA	White	3.2	3.6
350mA	Red	2.2	2.8
350mA	Green	3.4	3.8
350mA	Blue	3.2	3.6

Note:1. Forward Voltage (VF) ±0.06V,

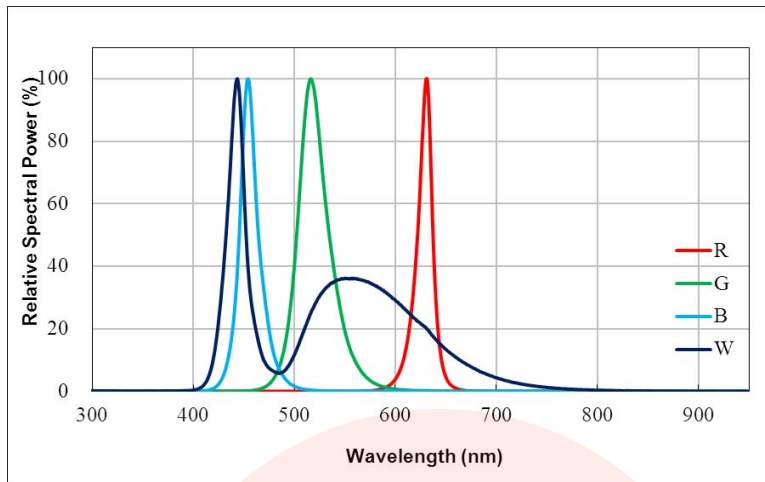
■ **Standard Bin & Wavelength Characteristics**

Standard Bin Wavelength (λd) @ If=350mA			
Rated Current	Color	Min. (nm)	Max. (nm)
350mA	White	5000K	6500K
350mA	Red	620	630
350mA	Green	520	530
350mA	Blue	455	465

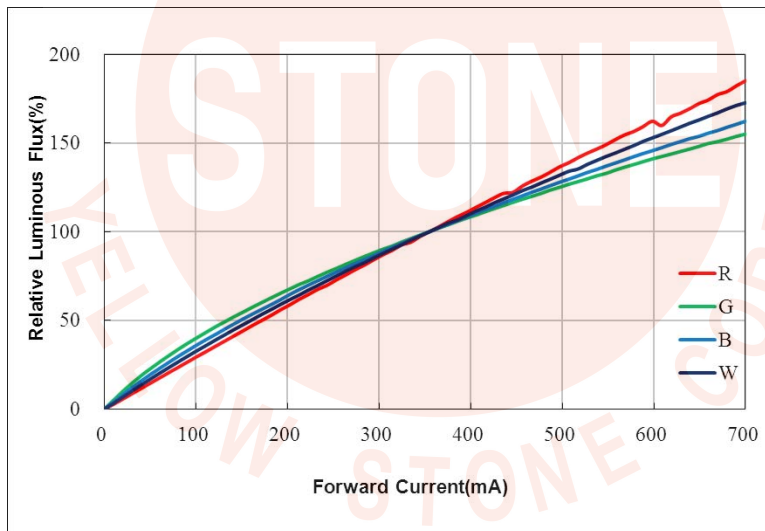
Note: 1. Wavelength is measured with an accuracy of ±1nm.

➤ **OPTICAL CHARACTERISTICS**

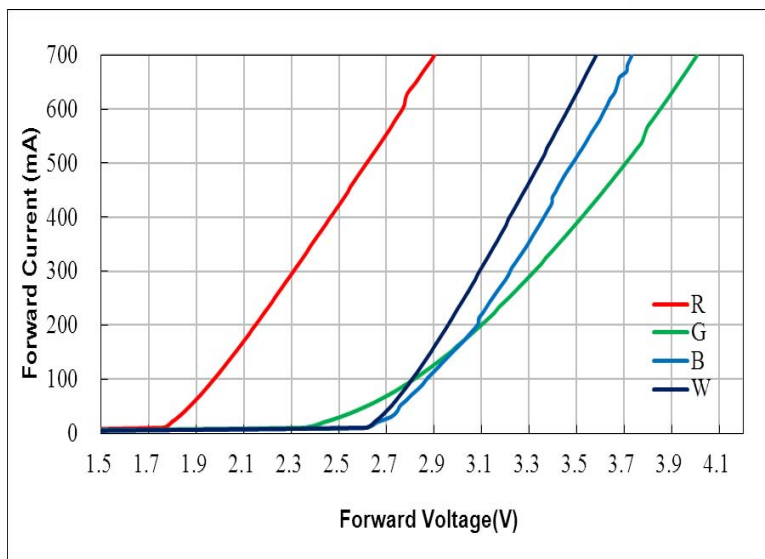
■ **RELATIVE SPECTRAL POWER DISTRIBUTION**



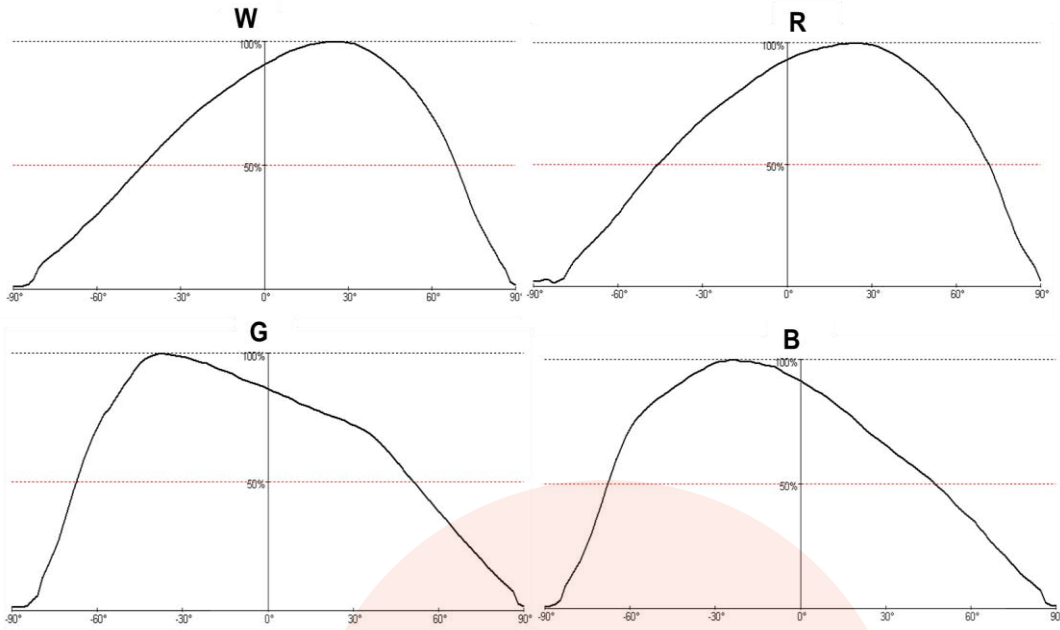
■ **RELATIVE FLUX VS. CURRENT (T_J = 25°C)**



■ **VOLTAGE VS. CURRENT (T_J = 25°C)**



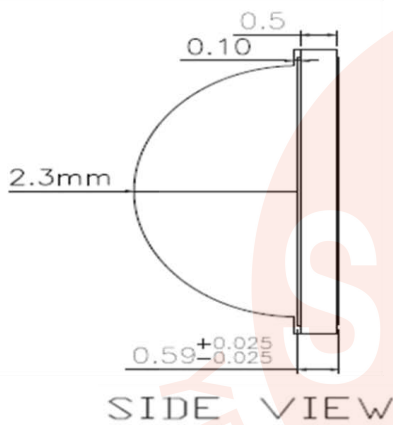
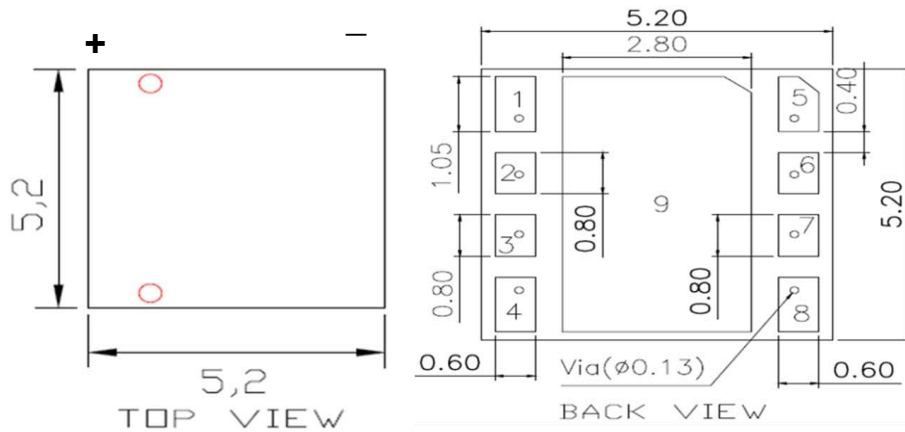
■ **TYPICAL SPATIAL DISTRIBUTION**



■ **COLOR COORDINATE**

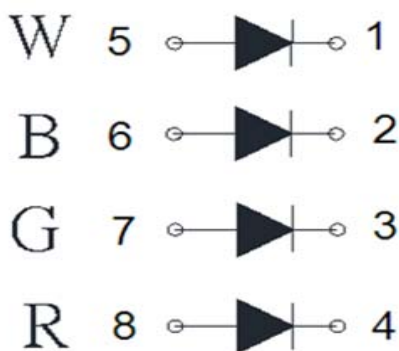


➤ **Structure and Outline Dimensions**



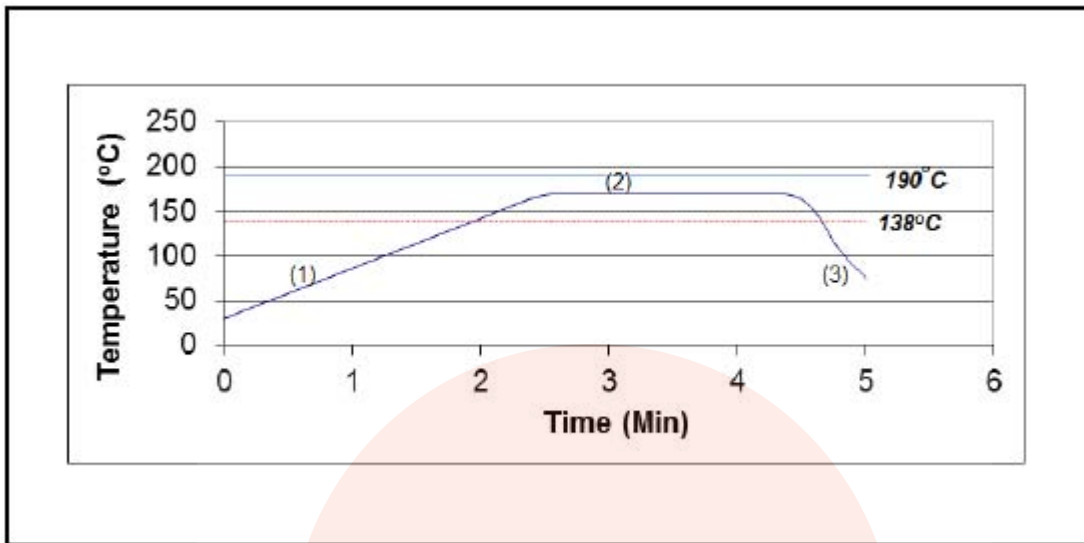
- § All dimensions are in millimeters.
- § Tolerance is ± 0.13 mm unless other specified

■ **Circuit Type**



➤ **REFLOW PROFILE**

■ **IR reflow soldering Profile**
Lead Free solder



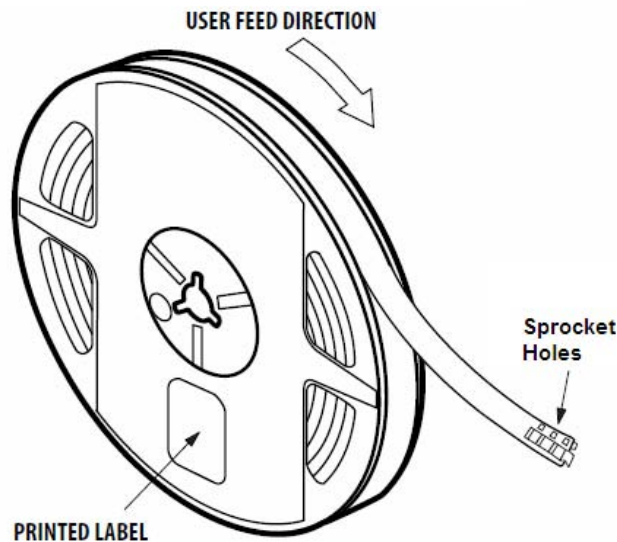
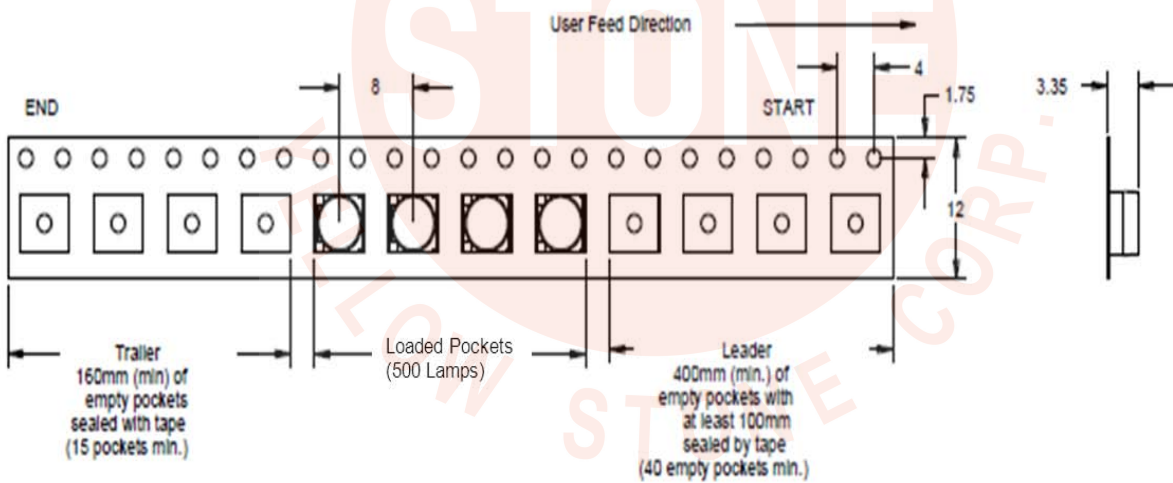
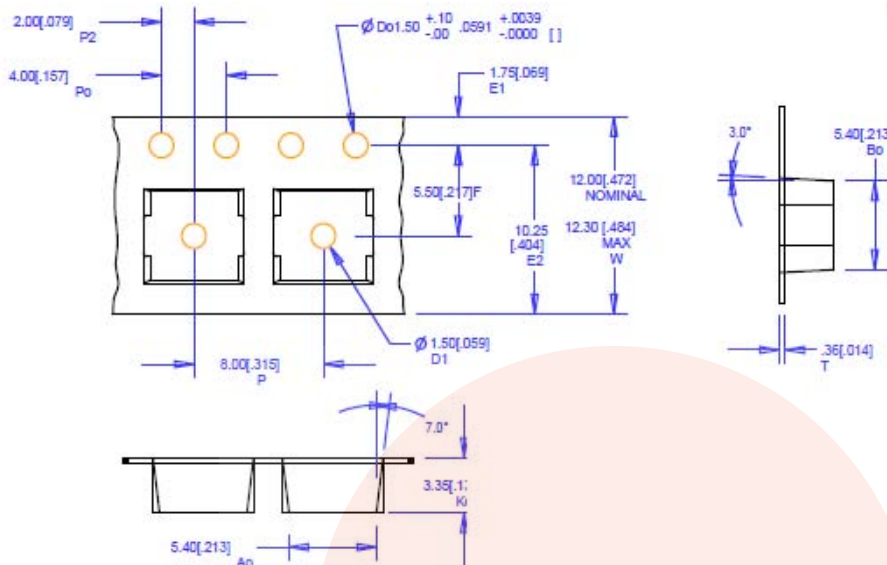
Profile Feature	Eutectic Assembly
(1) Preheat	0.5~1.0°C/second 120~150 seconds
(2) Soak and reflow	170~190°C 90-120 seconds
(3) Cooling stage	-3~-4 °C/ second 30-60 seconds

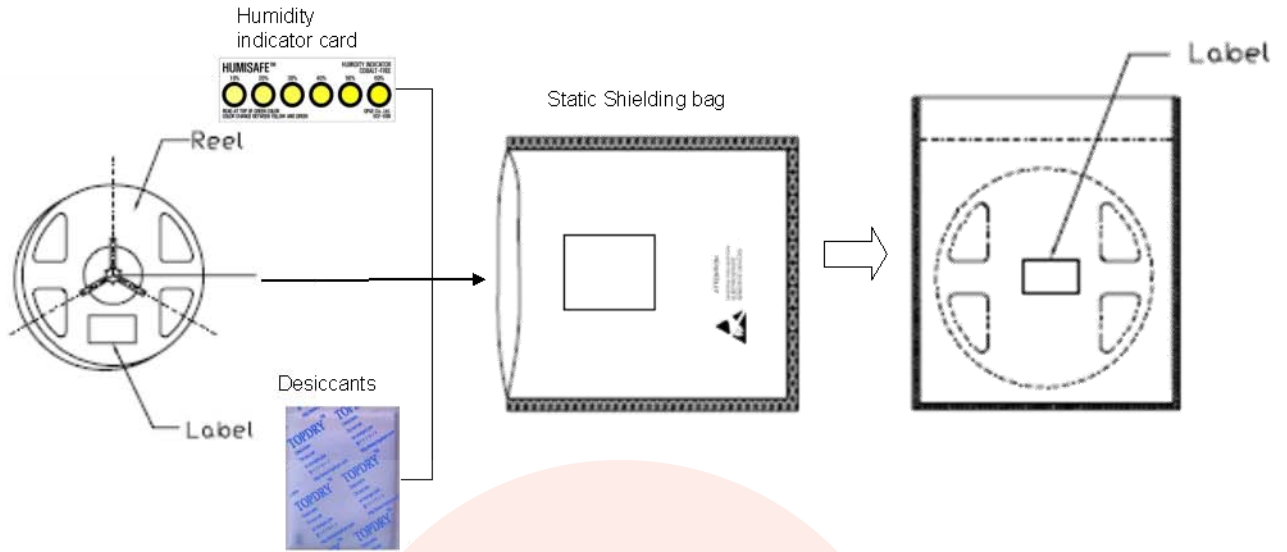
NOTES:

1. We recommend the reflow temperature 180°C (±5°C).the maximum soldering temperature should be limited to 190°C.
2. Don't stress the silicone resin while it is exposed to high temperature.
3. Number of reflow process shall be 1 time.
4. Recommend Solder:
 - 1.TAMURA-TLF-401-11
 2. PF602-P

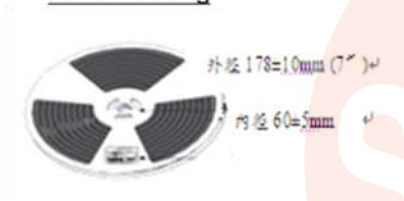
➤ **PACKING**

■ **Tape and Reel**





MFG Packing



Ship out packing Step

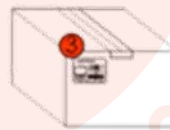


1 bags in an inner box = 2500EA

FG in after OQC Packing



1 reel in a bag = 500EA

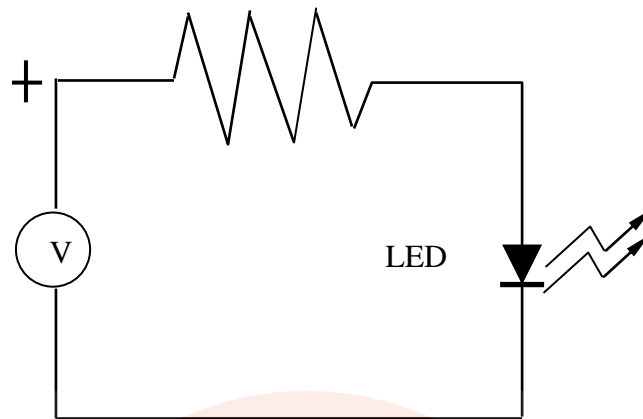


Small siez 5 inner box in an outer box = 12500EA

Large size: 10 inner box in an outer box = 25000EA

➤ TEST CIRCUIT AND HANDLING PRECAUTIONS

■ Test circuit



■ Handling precautions

1、 The following items are recommended when handling LEDs

- 1.1 The lens of LEDs should not be exposed to dust and debris. Excessive dust and debris may cause a drastic decrease in light output.
- 1.2 Avoid mechanical stress on LED lens
- 1.3 Do not touch the LED lens surface. It would affect the optical performance of the LED due to the LED lens' damage
- 1.4 Pick & place tool was recommended to use for the remove of LEDs from the factory tape & reel packaging

3、 Lens handling

Please follow the guideline to grab LEDs

- 3.1 Use tweezers to grab LEDs
- 3.2 Do not touch lens with the tweezers
- 3.3 Do not touch lens with fingers
- 3.4 Do not apply more than 4N of lens (400g) directly onto the lens

4、 Lens cleaning

In the case where a minimal level of dirt and dust particles can't be guaranteed, a suitable cleaning solution can be applied to the lens surface

- 4.1 Try a gentle swabbing using a lint-free swab
- 4.2 If needed, the use of lint-free swab and isopropyl alcohol used gently removes dirt from the lens surface.
- 4.3 Do not use other solvents as they may directly react with the LED assembly
- 4.4 Do not use ultrasonic cleaning that the LED will be damaged

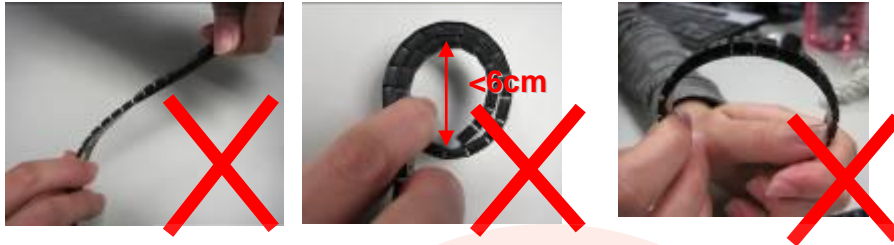
5、Carrier Tape Handling

The following items are recommended when handling the Carrier tape of LEDs

5.1 Do not twist the carrier tape

5.2 The inward bending diameter should not smaller than 6cm for carrier tape.

5.3 Do not bend the tape outward.



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