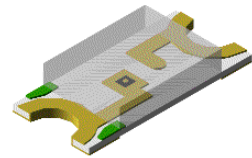


1206 Package SMD LED 0.5mm Height

VS 52H8

Description


The major breakthrough in VS 52H8 is blue color emitted, package in dimension L x W x H, 3.2 * 1.5 * 0.5mm. The dice used in this series is InGaN material. The advantages of InGaN are low power consumption and obtaining high luminous intensity under low current driving condition. The Wavelengths and Luminous Intensities of this series are grouped under 20mA for uniformity. These LEDs are suitable for multiple usages in series connection applications.



Applications

- Industrial control systems signal indicator
- Automotive features
- Front panel indicator
- Status indication

Electronic Optical Characteristics (@ 20mA):

Part Number	Emitted Color	λ (nm)		Lens Color	Iv(mcd)		View Angle	VF(V)	
		λ_d	λ_p		Min.	Max.		Typ.	Max.
VS 52H8	Blue 	470	468	Clear	45	100	140	3.5	4.0

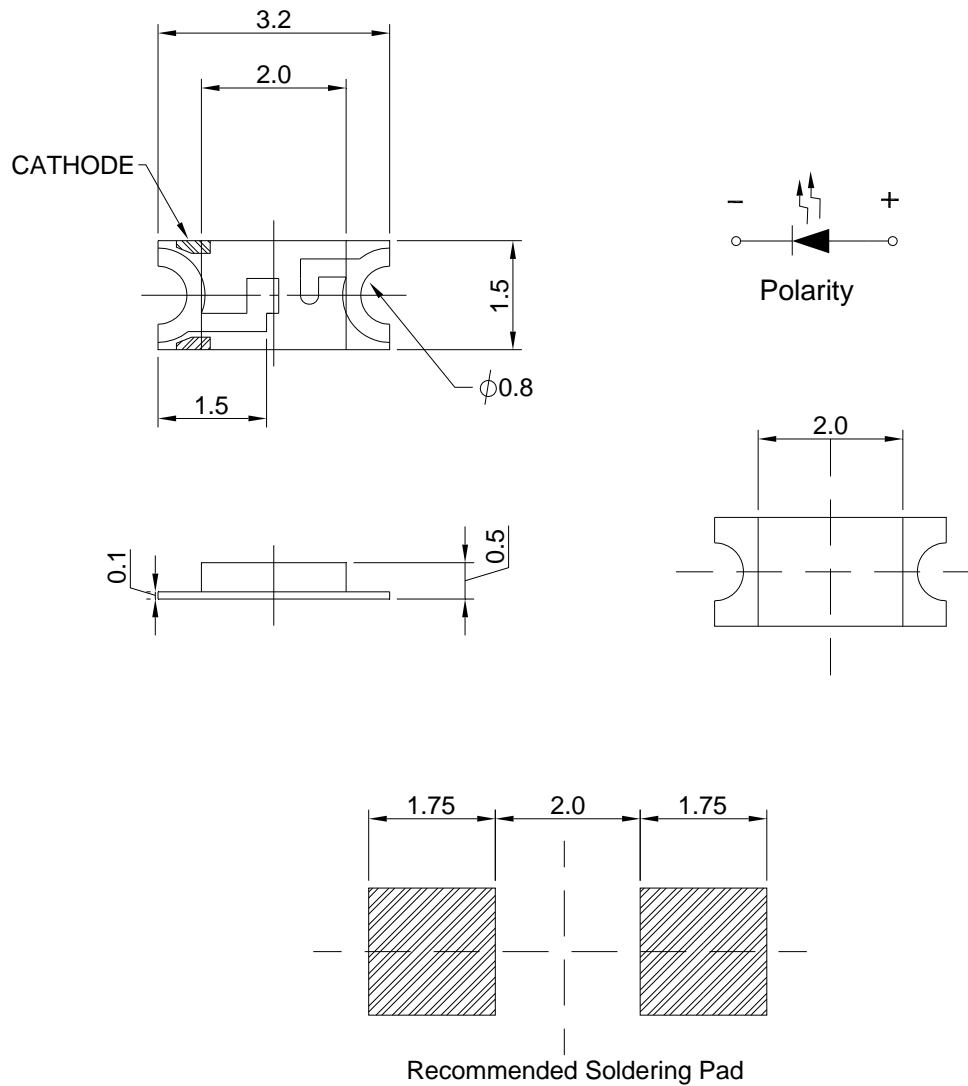
Absolute Maximum Ratings (@ Ta=25°C)

P _D (mW)	I _{FP} (mA)	I _F (mA)	Iron Solder (°C)	I _R (uA)@V _R =5V	T _{opr} (°C)	T _{stg} (°C)
100	100*	25	350 ± 5 for 3 sec.	50	-40~+85	-40~+100

Note: Please take note the Absolute Maximum Rating values. Any operation beyond the specified ratings in this table will result degradation of LED life- span and may cause LED to fail.

Package Dimension:

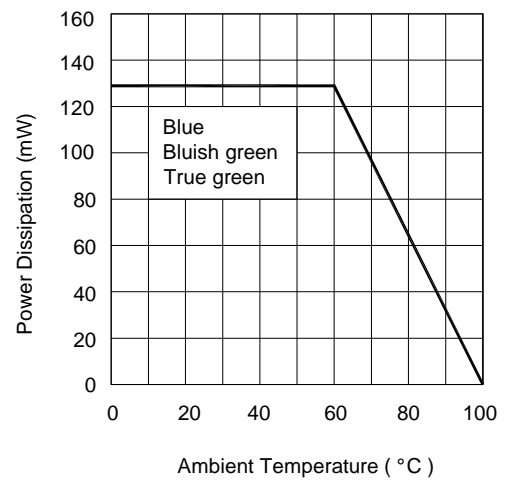
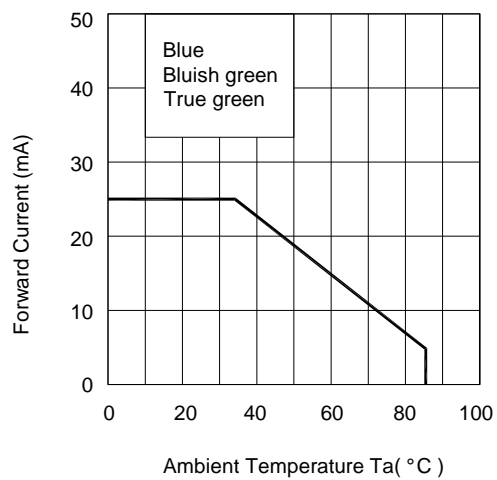
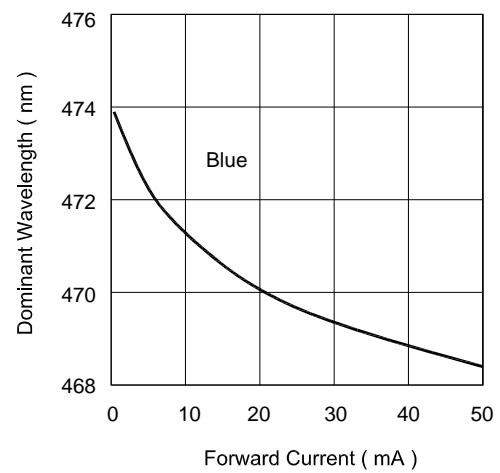
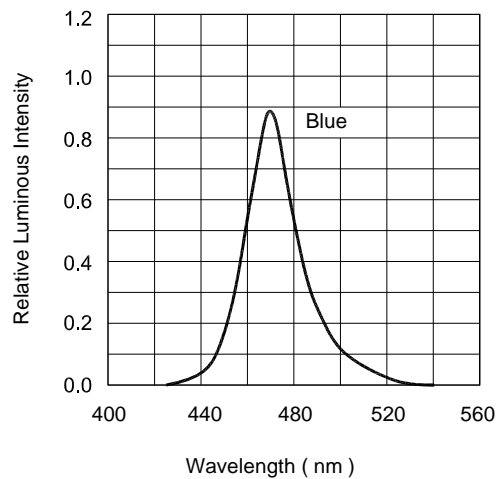
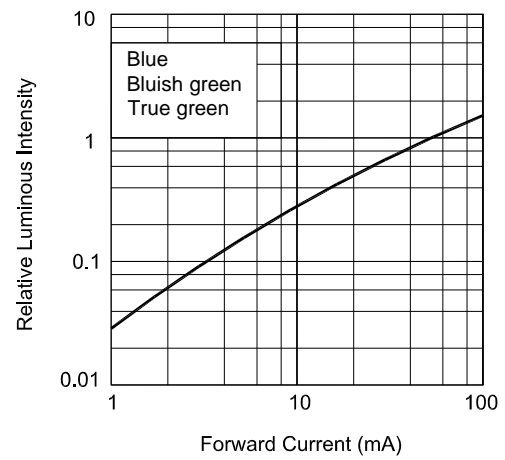
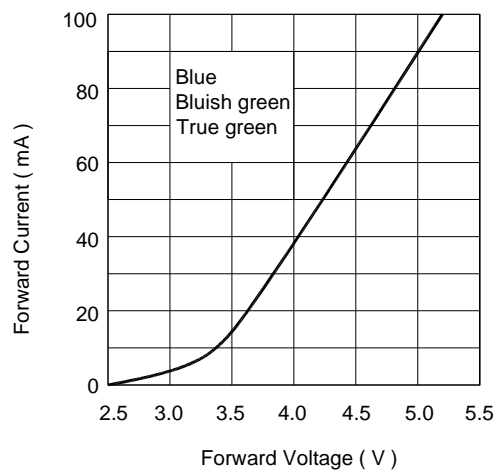
unit : mm



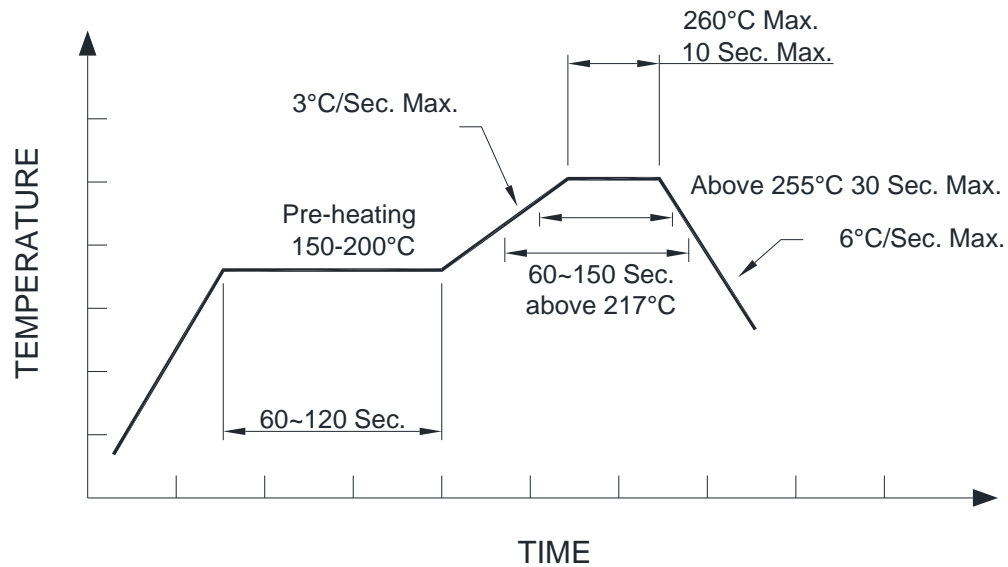
Notes:

1. All dimensions are millimeters.
2. Tolerance is ± 0.2 mm unless otherwise specified.
3. Specifications are subject to change without notice.

Optical Characteristics Curves



Recommended re-flow soldering profile:



Note:

All the specifications listed in this data sheet are suitable for general electronic equipment, office equipment and communication devices. Kindly consult Sales Representatives for specific reliabilities request, Forward Voltage, Luminous Intensity, Wavelength, Radiant Power or Viewing Angle.

Specification for Bin Grade:

Wavelength Rank @ 20 mA

Bin Code	B1	B2	--	--
nm	465-470	470-475	--	--

Luminous intensity Rank @ 20 mA

Bin Code	32	33	34	34
Iv (mcd)	45-56	56-71	71-90	90-112

Please exercise extreme care while using this device.

1. Application

This device is suitable for general type of electronics products such as Office Equipment, Telecommunication products, Household products, toys...etc.

Kindly consult us prior to using this device under stringent operating environment, condition or applications require demanding reliabilities.

2. Assembly

If this device requires lead forming, it is recommended forming to be done before soldering and at least 2mm away from the base of the LED lens. The purpose is to avoid excessive mechanical stress asserted to the device.

3. Solder temperature

Soldering iron: 290 °C max @ 3sec max. One times only.

Wave soldering: Preheat @ 100°C max.

Solder @ 260°C max.

Time @ 10s max.

4. Storage

Avoid put in storage at an environment beyond 30 °C at 70% humidity. Once the package is opened, the devices must be used up within 60 days. Should a longer period is needed, it is suggested to store the unused devices in a air-tight and dry place such as a damp-proof cabinet.

5. ESD

This device can be damaged by ESD. One way to avoid is to provide proper grounding or shunting to all equipment, machineries and fixtures that will "dissipate" any discharge away from the device.

If these devices having abnormal function, it can be determined whether the device had been damaged by ESD with the following simple tests:

- (1) Device having high reverse leakage current
- (2) Device having low forward voltage
- (3) Device failed to light up under low current condition

6. Others

The concept of obtaining White emitting color is combining a Blue dice with Phosphor. Under operating condition, the heat generated may cause minor color shift.