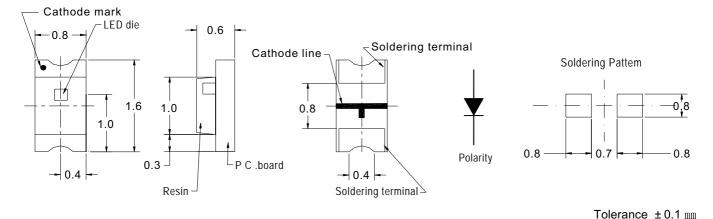
BRIGHT VIEW ELECTRONICS CO.,LTD

HIGH BRIGHTNESS SMD LED

BVS-166RU2

PACKAGE CONFIGURATION



DESCRIPTION

Dice Material : GaAlAs/GaAlAs Red Light Color : Red Color

Lens Color : Milky Diffused

ABSOLUTE MAXIMUM RATINGS AT Ta = 25 $^{\circ}$ C

PARAMETER	MAX.	UNIT
Power Dissipation	55	mW
Continuous Forward Current	20	mA
Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width)	80	mA
Reverse Voltage	5	V
Derating Linear From 50 $^\circ\!\!\mathbb{C}$	0.35	mA/ºC
Operating Temperature Range	-40 to $+100$	°C
Storage Temperature Range	-40 to $+100$	°C
Infrared Soldering Condition 260 $^\circ\!\mathrm{C}$ for 5 seconds		
Reflow Soldering Condition 230 $^\circ\!C$ for 10 seconds		

ELECTRICAL / OPTICAL CHARACTERISTICS AT Ta = 25 $^{\circ}$ C

SYMBOL	- PARAMETER	TEST COND.	MIN.	TYP.	MAX.	UNIT
VF	Forward Voltage	l		2.1	2.7	V
l r	Reverse Current	V r = 5V			100	μA
λρ	Peak Emission Wavelength	l		660		n m
λd	Dominant Wavelength	l		643		n m
2 <i>θ</i> 1/2	Viewing Angle	l		130		Deg

BIN GRADE LIMITS (IF = 20 mA) LUMINOUS INTENSITY / mcd

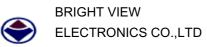
Bin	t	u	V	W	Х	у
Min.	17	22	28	36	47	60
Max.	22	28	36	47	60	78

Tolerance ±15%mcd

*Bright View reserves the rights to alter specifications and remove availability of products at any time without notice.

*Dominant Wavelength, $\lambda\,d$ is according to CIE Chromaticity Diagram base on color of lamps.

* θ 1/2 is the off-axis angle where the luminous intensity is one half the on-axis intensity.



SMD APPLICATION (PB FREE SOLDERING)

Apply to BVS-3XX \ 1XX series.

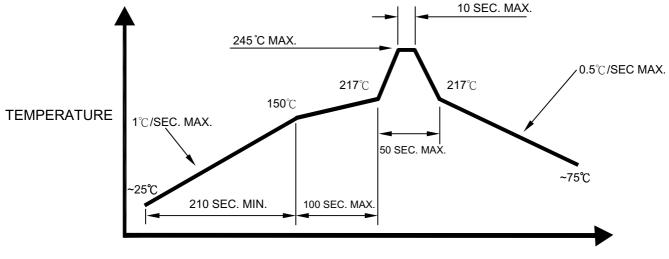
Description:

(1) Manual soldering (We do not recommend this method strongly.)

- (1.1) To prevent cracking, please bake (65 $^{\circ}$ C ,24hrs) before soldering.
- (1.2) Temperature at tip of iron: 250 $^\circ\!\mathrm{C}$ Max.(25W)
- (1.3) It's banned to load any stress on the resin during soldering.
- (1.4) Soldering time: 3 sec. Max.(one time only)

(2) Reflow Soldering

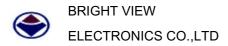
- (2.1) To prevent cracking, please bake (65°C, 24hrs) before soldering.
- (2.2) When soldering, do not put stress on the LEDs during heating.
- (2.3) Never take next process until the component is cooled down to room temperature after reflow.
- (2.4) After soldering, do not warp the circuit board.
- (2.5) The recommended reflow soldering profile(measuring on the surface of the LED resin)is following:



TIME

The reflow temperature 240°C ~245°C is recommended and the soldering temperature should be not higher than 245°C (one time only)

2005 / 10 / 20 - B



BVS-166/167 Series

