## : ©hipsmall

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation, and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!


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## SURFACE MOUNT LED <br> BLUE, 1206 PACKAGE

## SM1206BWC

- Industry Standard 1206 Package
- RoHS Compliant
- Small Package and Footprint
- Water Clear Lens
- Wide Viewing Angle
- Ideal for Status Indication, Display, and Backlighting


Bivar Surface Mount 1206 package LED may be used in nearly any lighting or indication application. The miniature package is ideal for small scale applications such as general indication and backlighting. Low power consumption and excellent long life reliability are suitable for battery powered equipment. Bivar offers water clear LED lens for maximum luminous intensity. Wide variety of wavelength and intensity combinations are available to meet any illumination need. The SM1206 LED is packaged in standard tape and reels for pick and place assemblies.

| Part Number | Material | Emitted Color | Peak <br> Wavelength <br> $\lambda p(n m)$ TYP. | Lens <br> Appearance | Luminous <br> Intensity <br> $(\mathrm{mcd})$ TYP. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SM1206BWC | InGaN | BLUE | 428 | Water Clear | 9 | $140^{\circ}$ |

## Outline Dimensions



1. All dimensions are in inches [millimeters]
2. Standard tolerance: $\pm 0.010$ " unless otherwise noted.


Bivar reserves the right to make changes at any time without notice.

## Absolute Maximum Ratings

$\mathrm{T}_{\mathrm{A}}=25^{\circ} \mathrm{C}$ unless otherwise noted

| Power Dissipation | 100 mW |
| :--- | ---: |
| Forward Current ( DC ) | 30 mA |
| Peak Forward Current ${ }^{1}$ | 100 mA |
| Reverse Voltage | 5 V |
| Operating Temperature Range | $-30 \sim+80^{\circ} \mathrm{C}$ |
| Storage Temperature Range | $-40 \sim+85^{\circ} \mathrm{C}$ |
| Lead Soldering Temperature ( 3 mm from the base of the epoxy bulb ) ${ }^{2}$ | $260^{\circ} \mathrm{C}$ |

Notes: 1. $10 \%$ Duty Cycle, Pulse Width $\leq 0.1$ msec. 2. Solder time less than 5 seconds at temperature extreme.

## Electrical / Optical Characteristics

$\mathrm{T}_{\mathrm{A}}=25^{\circ} \mathrm{C} \& \mathrm{I}_{\mathrm{F}}=20 \mathrm{~mA}$ unless otherwise noted

| Part Number | Forward Voltage (V) ${ }^{1}$ |  |  | Recommend Forward Current (mA) |  |  | Reverse Current ( $\mu \mathrm{A}$ ) <br> MAX | Dominant Wavelength (nm) ${ }^{2}$ |  |  | Luminous <br> Intensity Iv (mcd) |  |  | Viewing Angle $2 \theta 1 / 2$ (deg) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | MIN | TYP | MAX | MIN | TYP | MAX |  | MIN | TYP | MAX | MIN | TYP | MAX | TYP |
| SM1206BWC | 1 | 3.9 | 4.5 | 1 | 20 | 1 | 10 | 1 | 466 | 1 | 6 | 9 | 1 | 140 |

Notes: 1. Tolerance of forward voltage : $\pm 0.05 \mathrm{~V}$. 2. Tolerance of dominant wavelength : $\pm 1.0 \mathrm{~nm}$.

## Typical Electrical / Optical Characteristics

$\mathrm{T}_{\mathrm{A}}=25^{\circ} \mathrm{C}$ unless otherwise noted


Fig. 1 Forward Current vs. Forward Voltage


Fig. 3 Forward Current vs. Temperature


Fig. 2 Relative Luminous Intensity vs. Forward Current


Fig. 4 Directivity Radiation Diagram


Fig. 5 Relative Luminous Intensity vs. Peak Wavelength

## Recommended Soldering Conditions



## Tape and Reel Dimensions

## Note: 3000 pcs/Reel




Outline Drawings Notes:

1. All dimensions are in inches [millimeters].
2. Standard tolerance unless otherwise noted
X.XXX $\pm 0.010 "$ X.X $\pm 0.1$ "

## Packaging and Labeling Plan

Note: 1 Reel / Bag


| Part No. | XXXX-XXX-XXX |
| :--- | ---: |
| Prod. No. | XXXX-XXX-XXX |
| PO No. | XXXX |
| Lot No. | XXXXXXXXX |
| Q'ty: | X.XXX PCS |
| Q.C. | XXX BIN |
| Date: | $2008 . X X . X X$ |

Internal Quality Control


Bivar Standard Packaging Label

