

# SURFACE MOUNT LED

## ▼1101W · 1102W · 1201W · 1204W CHARACTERISTICS BY COLOR

Ta=25°C

| Type No. | Material/<br>Emitted Color | Absolute Maximum Ratings |                    |                            |                    |                          |                        |                 | Electro-Optical Characteristics |     |    |                 |   |                    |                            |    |
|----------|----------------------------|--------------------------|--------------------|----------------------------|--------------------|--------------------------|------------------------|-----------------|---------------------------------|-----|----|-----------------|---|--------------------|----------------------------|----|
|          |                            | Power<br>Dissipation     | Forward<br>Current | Peak<br>Forward<br>Current | Reverse<br>Voltage | Operating<br>Temperature | Storage<br>Temperature | θJA<br>Derating | Forward Voltage                 |     |    | Reverse Current |   | Wavelength         |                            |    |
|          |                            | ※ Pd                     | ※ If               | ※ IFM                      | Vr                 | Topr                     | Tstg                   | 1/W             | VF                              |     |    | Ir              |   | Peak<br>λD<br>TYP. | Half Width<br>λ1/2<br>TYP. | λr |
|          |                            | TYP.                     | MAX.               | If                         | MAX.               | Vr                       | TYP.                   | λr              | λr                              |     |    |                 |   |                    |                            |    |
| BR       | GaAlAs (Red)               | 60                       | 30                 | 70                         | 4                  | -30~+85                  | -30~+90                | 0.42            | 1.7                             | 2.0 | 20 | 100             | 4 | 660                | 30                         | 20 |
| AA       | GaAsP / GaP (Orange)       | 75                       | 30                 | 70                         | 4                  | -30~+85                  | -30~+90                | 0.42            | 2.2                             | 2.5 | 20 | 100             | 4 | 605                | 30                         | 20 |
| AY       | GaAsP / GaP (Yellow)       | 75                       | 30                 | 70                         | 4                  | -30~+85                  | -30~+90                | 0.42            | 2.2                             | 2.5 | 20 | 100             | 4 | 580                | 30                         | 20 |
| PY       | GaP (Yellow)               | 75                       | 30                 | 70                         | 4                  | -30~+85                  | -30~+90                | 0.42            | 2.1                             | 2.5 | 20 | 100             | 4 | 570                | 30                         | 20 |
| PG       | GaP (Green)                | 75                       | 30                 | 70                         | 4                  | -30~+85                  | -30~+90                | 0.42            | 2.1                             | 2.5 | 20 | 100             | 4 | 560                | 30                         | 20 |
| BG       | GaP (Pure Green)           | 75                       | 30                 | 70                         | 4                  | -30~+85                  | -30~+90                | 0.42            | 2.1                             | 2.5 | 20 | 100             | 4 | 555                | 30                         | 20 |
|          | Unit                       | mW                       | mA                 | mA                         | V                  | °C                       | °C                     | W/m²            | V                               | V   | mA | mA              | V | nm                 | nm                         | nm |


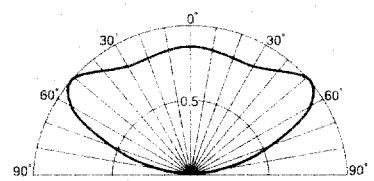

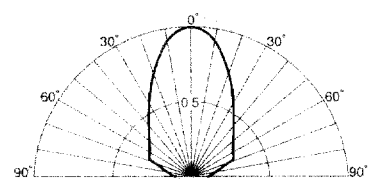

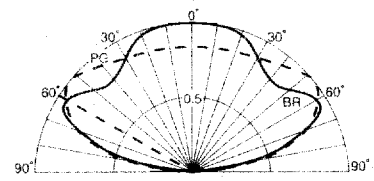

● IFM condition :  $t_w \leq 1\text{msec}$  and duty cycle  $\leq 1/20$

※ Absolute maximum ratings required by the LED with 2 chips inside and driven simultaneously are : Pd=75mW, IFM=70mA

※1 The current derating for operation applies when the temperature is above 25°C.

## ▼CHARACTERISTICS BY SHAPE

Ta=25°C

| Lens Type       | Shape   | Type No.  | Emitted Color   | Lens        | Peak Wave Length (nm) | Luminous Intensity (mcd) |             |     | Spatial Distribution (The typical distribution diagram of each shape is shown below.) | Ig |
|-----------------|---|-----------|---|-------------|-----------------------|--------------------------|-------------|-----|---|----|
| Flat lens type  |    | BR1101W   | Red   | Water Clear | 660                   | 1.6                      | 4.5         | 20  |    | 6  |
|                 |   | AA1101W   | Orange  |             | 605                   | 1                        | 3.6         | 20  |   |    |
|                 |   | AY1101W   | Yellow  |             | 580                   | 2                        | 3.2         | 20  |   |    |
|                 |   | PY1101W   |   |             | 570                   | 1.4                      | 4           | 20  |   |    |
|                 |   | PG1101W   | Green   |             | 560                   | 1.2                      | 3           | 20  |   |    |
|                 |   | BG1101W   | Pure Green  |             | 555                   | 0.7                      | 1.4         | 20  |   |    |
| Inner lens type |  | BR1102W   | Red   | Water Clear | 660                   | 6                        | 17          | 20  |   | 7  |
|                 |   | AA1102W   | Orange  |             | 605                   | 5                        | 9           | 20  |   |    |
|                 |   | AY1102W   | Yellow  |             | 580                   | 3                        | 6           | 20  |   |    |
|                 |   | PY1102W   |   |             | 570                   | 6                        | 12          | 20  |   |    |
|                 |   | PG1102W   | Green   |             | 560                   | 3                        | 7.5         | 20  |   |    |
|                 |   | BG1102W   | Pure Green  |             | 555                   | 0.9                      | 2.3         | 20  |   |    |
| Flat lens type  |  | BRPY1201W | Red   | Water Clear | 660                   | 1.6                      | 4.5         | 20  |  | 8  |
|                 |   | BRPG1201W | Yellow  |             | 570                   | 1.4                      | 4           | 20  |   |    |
|                 |   |           | Green   |             | 560                   | 1.2                      | 3           | 20  |   |    |
|                 |   | BRBG1201W | Red   |             | 660                   | 1.6                      | 4.5         | 20  |   |    |
|                 |   |           | Pure Green  |             | 555                   | 0.7                      | 1.4         | 20  |   |    |
|                 |   | AAPY1201W | Orange  |             | 605                   | 1                        | 3.6         | 20  |   |    |
|                 |   |           | Yellow  |             | 570                   | 1.4                      | 4           | 20  |   |    |
|                 |   | 2 lens    |  |             | BRPY1204W             | Red                      | Water Clear | 660 |   |    |
| BRPG1204W       | Yellow  |           |   | 570         | 6                     | 12                       |             | 20  |   |    |
|                 | Green   |           |   | 560         | 3                     | 7.5                      |             | 20  |   |    |
| BRBG1204W       | Red   |           |   | 660         | 6                     | 17                       |             | 20  |   |    |
|                 | Pure Green  |           |   | 555         | 0.9                   | 2.3                      |             | 20  |   |    |
| AAPY1204W       | Orange  |           |   | 605         | 5                     | 9                        |             | 20  |   |    |
|                 | Yellow  |           |   | 570         | 6                     | 12                       |             | 20  |   |    |



## ▼PACKAGE DIMENSIONS Unit : mm

Tolerance :  $\pm 0.2\text{mm}$

fig. 6

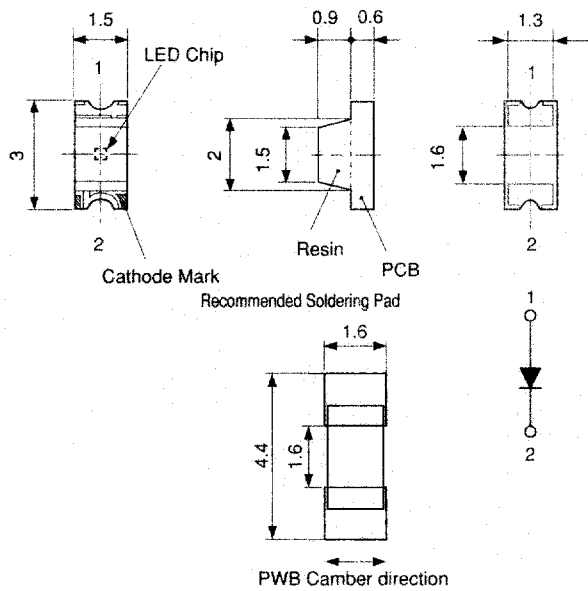


fig. 7

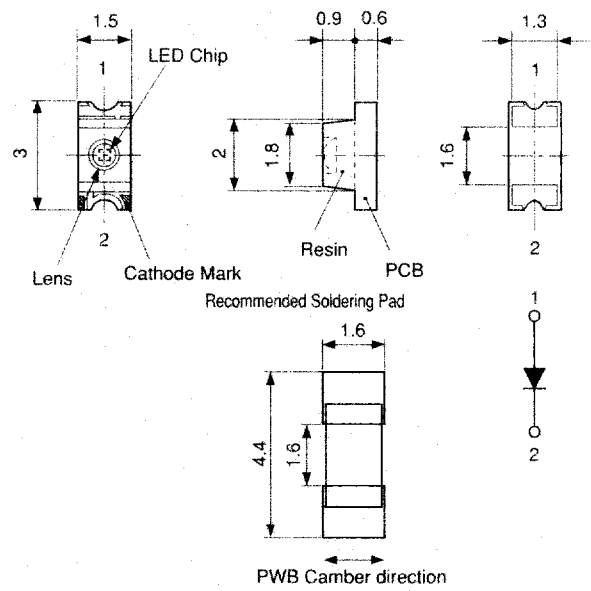


fig. 8

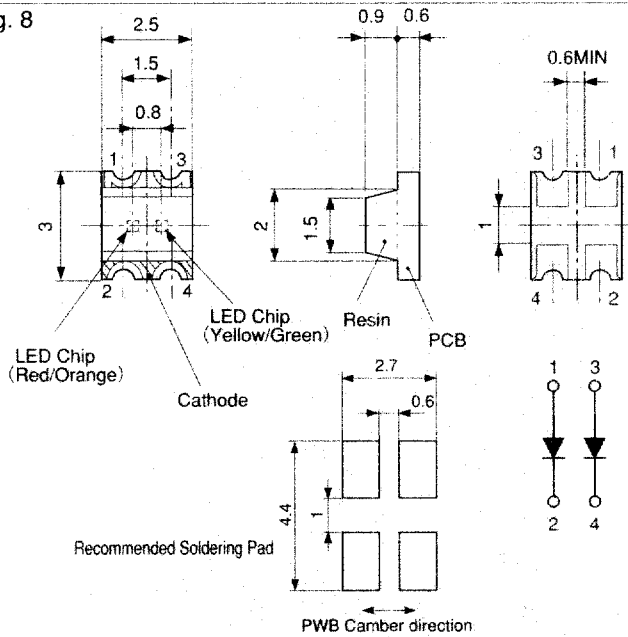
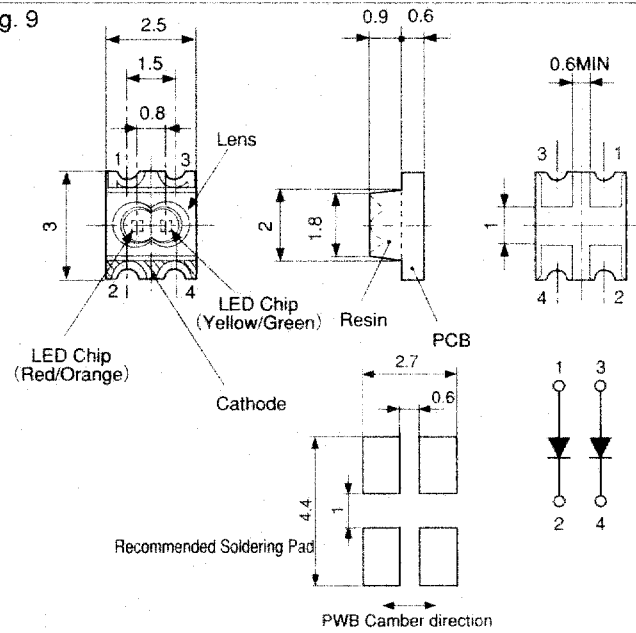
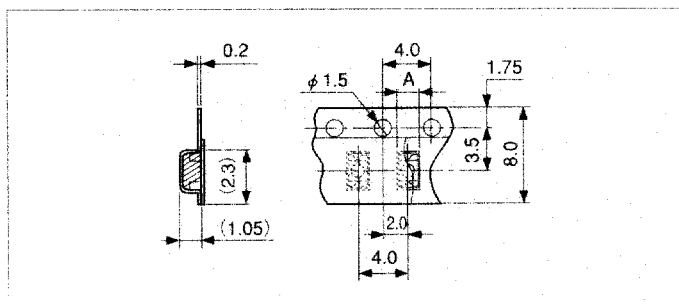


fig. 9



## ▼Taping specification Unit : mm

Unit : mm

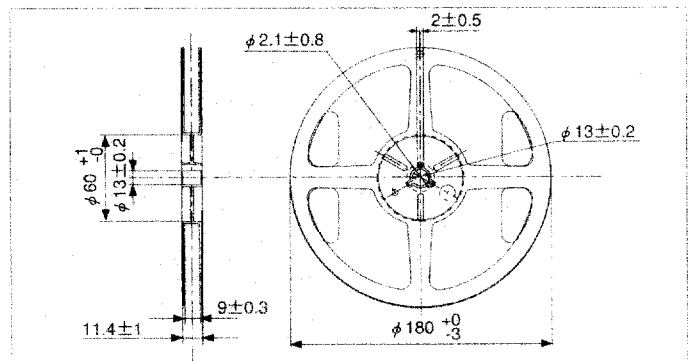


A Dimension  
(Tolerance :  $\pm 0.1$ )

|         |       |
|---------|-------|
| 1 Chip  | (1.8) |
| 2 Chips | (2.8) |

## ▼Reel specification Unit : mm

Unit : mm



Quantity :Pcs /Reel

|       |
|-------|
| 2,500 |
| 2,500 |

# Mouser Electronics

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Stanley Electric:

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