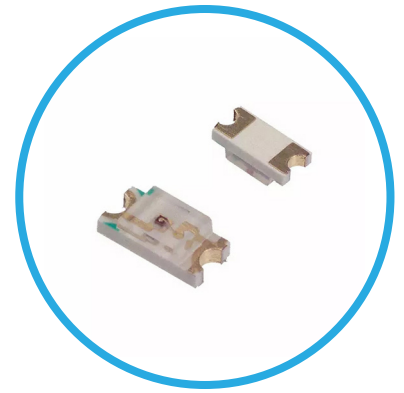


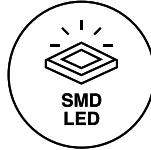
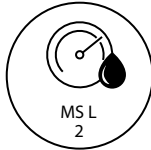
# CMD15-21 Series

## 1206 Package Size

### Surface Mount Technology LED



SMD LED in a 1206 package with clear and diffused lens options. Available in multiple single color options.



#### Applications

- Wearable and Portable Devices
- Automotive Features
- Navigations Systems
- Home and Smart Appliance
- Backlit Keypads
- Medical Devices
- Health Care Application
- Industrial Control Systems
- Status Indicator

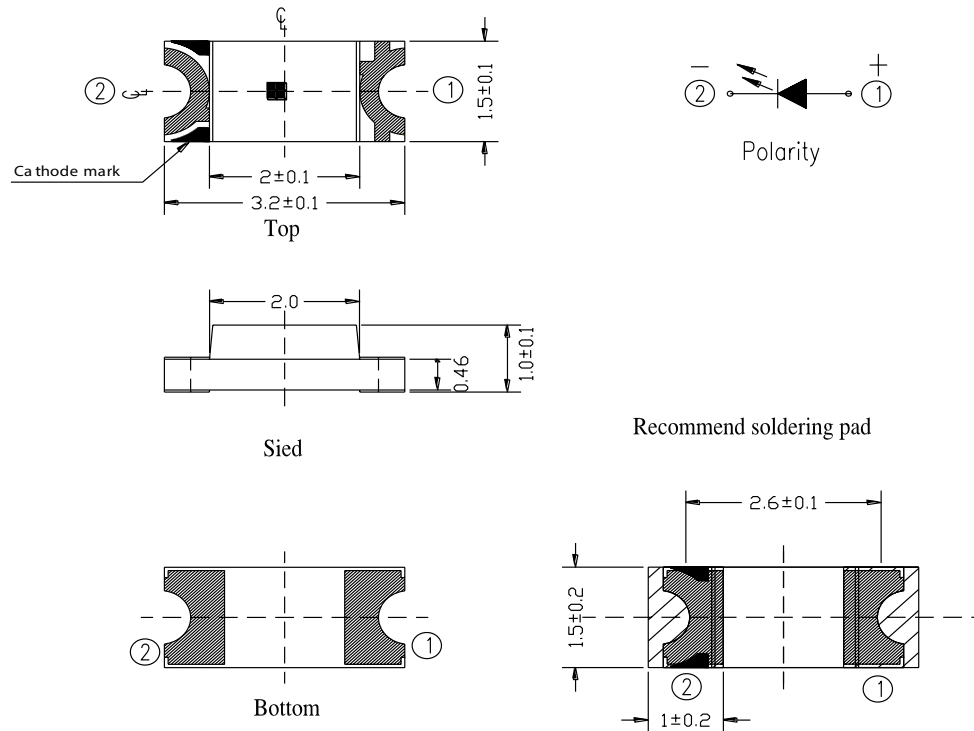
#### Key Features

- Surface mount technology
- 1206 LED package size
- Available in a range of colors: red, green, yellow and blue, clear and diffused
- Tape and reel packaged for high-speed auto insertion
- Convection and vapor-phase reflow compatible
- Compact form enables high density placement
- Consistent high brightness
- Integral lensing for narrow angle light dispersion
- Stringent process controls assure quality
- Extensive qualification testing to meet strictest requirements
- Designed to permit easy post-reflow solder joint inspection
- MSL Rating 2
- For custom LED color contact VCC
- RoHS and REACH Compliant

## Ordering Data

| Series   | Emitted Color/Lens Color                                                                                                                                                                                                                                                                                                                                                                                                                                                    |         |                |         |                     |         |              |         |             |         |            |         |                        |         |                                 |         |                           |
|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|----------------|---------|---------------------|---------|--------------|---------|-------------|---------|------------|---------|------------------------|---------|---------------------------------|---------|---------------------------|
| CMD15-21 | SRC/TR8                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |         |                |         |                     |         |              |         |             |         |            |         |                        |         |                                 |         |                           |
|          | <table border="1"> <tr> <td>SRC/TR8</td><td>Deep Red/Clear</td></tr> <tr> <td>VRC/TR8</td><td>Brilliant Red/Clear</td></tr> <tr> <td>VYC/TR8</td><td>Yellow/Clear</td></tr> <tr> <td>VGC/TR8</td><td>Green/Clear</td></tr> <tr> <td>UBC/TR8</td><td>Blue/Clear</td></tr> <tr> <td>VRD/TR8</td><td>Brilliant Red Diffused</td></tr> <tr> <td>VGD/TR8</td><td>Brilliant Yellow Green Diffused</td></tr> <tr> <td>VYD/TR8</td><td>Brilliant Yellow Diffused</td></tr> </table> | SRC/TR8 | Deep Red/Clear | VRC/TR8 | Brilliant Red/Clear | VYC/TR8 | Yellow/Clear | VGC/TR8 | Green/Clear | UBC/TR8 | Blue/Clear | VRD/TR8 | Brilliant Red Diffused | VGD/TR8 | Brilliant Yellow Green Diffused | VYD/TR8 | Brilliant Yellow Diffused |
| SRC/TR8  | Deep Red/Clear                                                                                                                                                                                                                                                                                                                                                                                                                                                              |         |                |         |                     |         |              |         |             |         |            |         |                        |         |                                 |         |                           |
| VRC/TR8  | Brilliant Red/Clear                                                                                                                                                                                                                                                                                                                                                                                                                                                         |         |                |         |                     |         |              |         |             |         |            |         |                        |         |                                 |         |                           |
| VYC/TR8  | Yellow/Clear                                                                                                                                                                                                                                                                                                                                                                                                                                                                |         |                |         |                     |         |              |         |             |         |            |         |                        |         |                                 |         |                           |
| VGC/TR8  | Green/Clear                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |         |                |         |                     |         |              |         |             |         |            |         |                        |         |                                 |         |                           |
| UBC/TR8  | Blue/Clear                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |         |                |         |                     |         |              |         |             |         |            |         |                        |         |                                 |         |                           |
| VRD/TR8  | Brilliant Red Diffused                                                                                                                                                                                                                                                                                                                                                                                                                                                      |         |                |         |                     |         |              |         |             |         |            |         |                        |         |                                 |         |                           |
| VGD/TR8  | Brilliant Yellow Green Diffused                                                                                                                                                                                                                                                                                                                                                                                                                                             |         |                |         |                     |         |              |         |             |         |            |         |                        |         |                                 |         |                           |
| VYD/TR8  | Brilliant Yellow Diffused                                                                                                                                                                                                                                                                                                                                                                                                                                                   |         |                |         |                     |         |              |         |             |         |            |         |                        |         |                                 |         |                           |

## Product Dimensions



### Notes:

1. All dimensions are in mm
2. Tolerance is  $\pm 0.1$  mm unless otherwise noted.
3. The specifications, characteristics and technical data described in the datasheet are subject to change without prior notice.

## Product Specifications

### Electrical-Optical Characteristics

| Part Number     | Emitted Color                   | Lens Color      | Luminous Intensity |            | Forward Voltage |          | Test Current (mA) | Peak Wavelength (nm) |
|-----------------|---------------------------------|-----------------|--------------------|------------|-----------------|----------|-------------------|----------------------|
|                 |                                 |                 | Min. (mcd)         | Typ. (mcd) | Typ. (V)        | Max. (V) |                   |                      |
| CMD15-21SRC/TR8 | Deep Red                        | Clear           | 10                 | 18         | 1.7             | 2.4      | 20                | 660                  |
| CMD15-21VRC/TR8 | Brilliant Red                   | Clear           | 15                 | 38         | 2.0             | 2.4      | 20                | 632                  |
| CMD15-21VYC/TR8 | Yellow                          | Clear           | 15                 | 39         | 2.0             | 2.4      | 20                | 591                  |
| CMD15-21VGC/TR8 | Green                           | Clear           | 10                 | 15         | 2.0             | 2.4      | 20                | 575                  |
| CMD15-21UBC/TR8 | Blue                            | Clear           | 45                 | -          | 3.3             | 3.7      | 20                | 468                  |
| CMD15-21VRD/TR8 | Brilliant Red Diffused          | Red Diffused    | 25                 | 40         | 1.7             | 2.4      | 20                | 632                  |
| CMD15-21VGD/TR8 | Brilliant Yellow Green Diffused | Green Diffused  | 16                 | 24         | 2.0             | 2.4      | 20                | 573                  |
| CMD15-21VYD/TR8 | Brilliant Yellow Diffused       | Yellow Diffused | 16                 | 25         | 2.0             | 2.4      | 20                | 591                  |

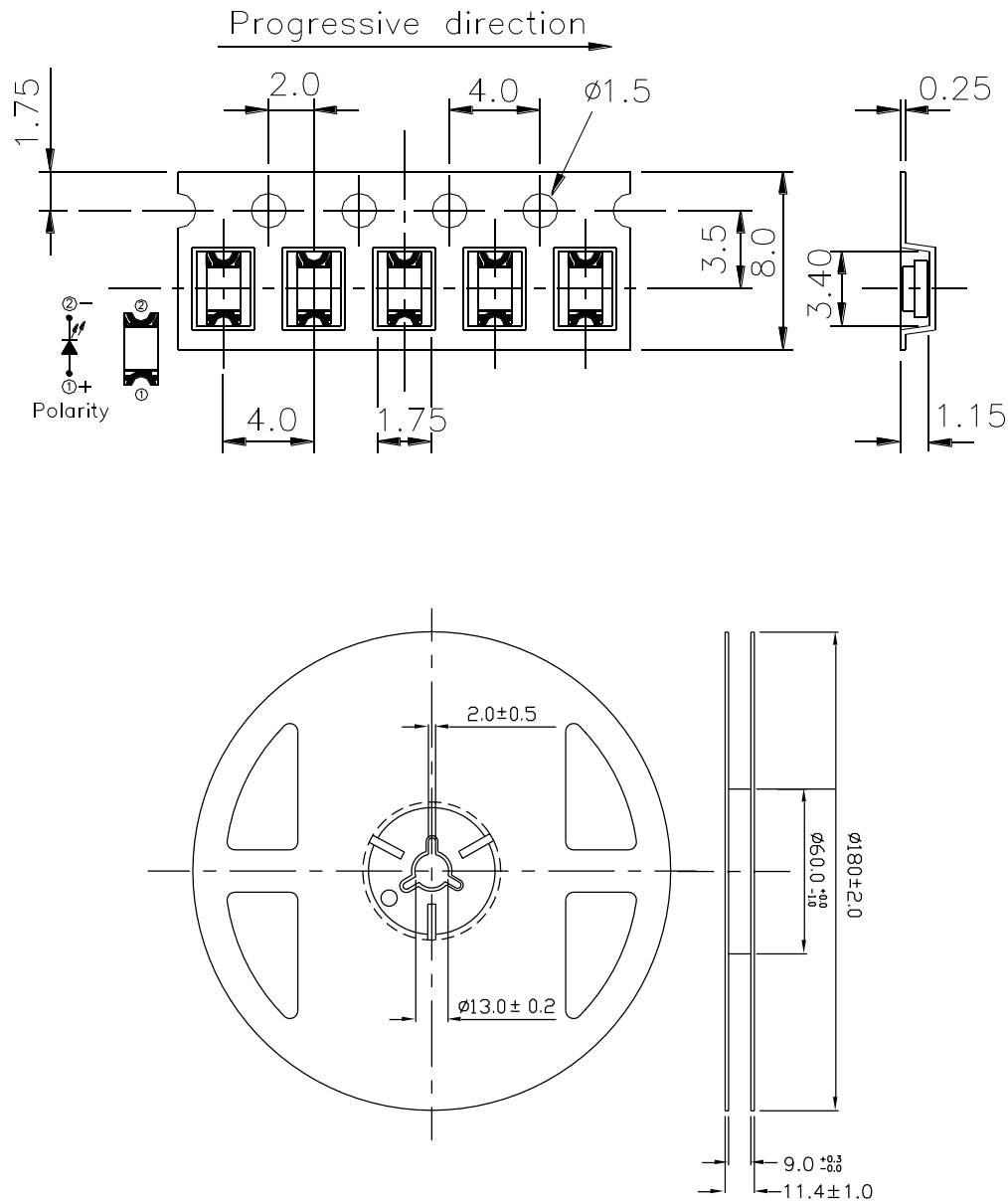
### Absolute Maximum Ratings

| Emitted Color                   | Reverse Voltage (IR=100μA) (V) | Average Forward Current (mA) | Peak Forward Current (1 μs @ 10% duty cycle) (mA) | Power Dissipation (mW) | Operating Temperature (°C) | Storage Temperature (°C) | Lead Solder Time at 260°C (Seconds) |
|---------------------------------|--------------------------------|------------------------------|---------------------------------------------------|------------------------|----------------------------|--------------------------|-------------------------------------|
| Deep Red                        | 5.0                            | 25                           | 80                                                | 110                    | -40 to +85                 | -40 to +90               | 10 Max                              |
| Yellow                          | 5.0                            | 25                           | 60                                                | 60                     | -40 to +85                 | -40 to +90               | 10 Max                              |
| Green                           | 5.0                            | 25                           | 60                                                | 60                     | -40 to +85                 | -40 to +90               | 10 Max                              |
| Blue                            | 5.0                            | 20                           | 40                                                | 75                     | -40 to +85                 | -40 to +90               | 10 Max                              |
| Brilliant Red                   | 5.0                            | 25                           | 60                                                | 60                     | -40 to +85                 | -40 to +90               | 10 Max                              |
| Red Diffused                    | 5.0                            | 25                           | 60                                                | 60                     | -40 to +85                 | -40 to +90               | 10 Max                              |
| Brilliant Yellow Green Diffused | 5.0                            | 25                           | 60                                                | 60                     | -40 to +85                 | -40 to +90               | 10 Max                              |
| Brilliant Yellow Diffused       | 5.0                            | 25                           | 60                                                | 60                     | -40 to +85                 | -40 to +90               | 10 Max                              |

### Reel Qty (pieces)

| Part Number | Qty |
|-------------|-----|
|-------------|-----|

|                 |      |
|-----------------|------|
| CMD15-21SRC/TR8 | 2000 |
| CMD15-21VRC/TR8 | 3000 |
| CMD15-21VYC/TR8 | 3000 |
| CMD15-21VGC/TR8 | 3000 |
| CMD15-21UBC/TR8 | 3000 |
| CMD15-21VRD/TR8 | 3000 |
| CMD15-21VGD/TR8 | 3000 |
| CMD15-21VYD/TR8 | 3000 |



### Notes:

1. All dimensions are in mm
2. Tolerance is  $\pm 0.1$  mm unless otherwise noted.
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## Compliances and Approvals

