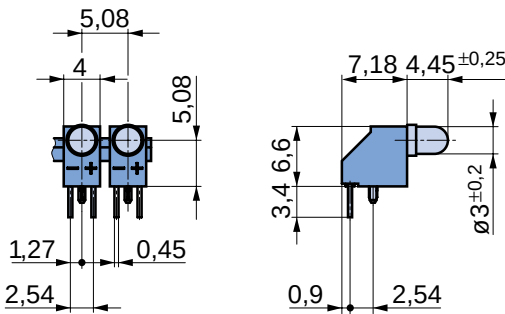
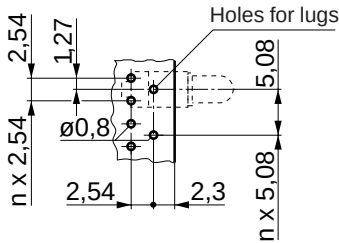


# LED-Arrays

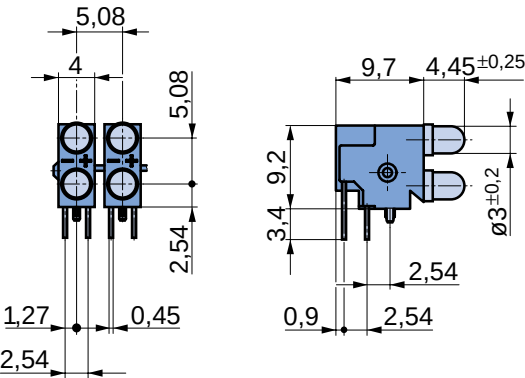
## Single-height LED-Arrays



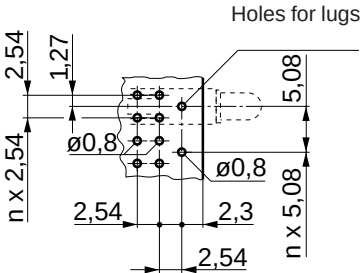
Drilling diagram  
View from component side



## Double-height LED-Arrays



Drilling diagram  
View from component side



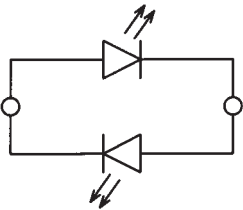
## Description

High-quality diode and plastic body, forming a compact unit for easy assembly.

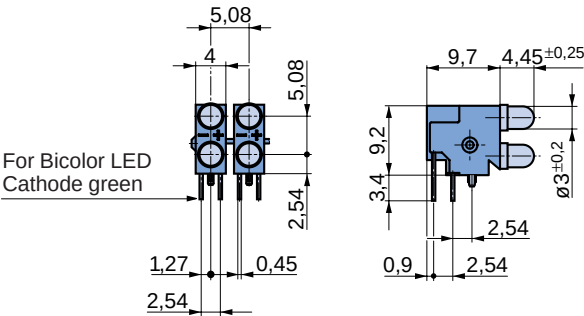
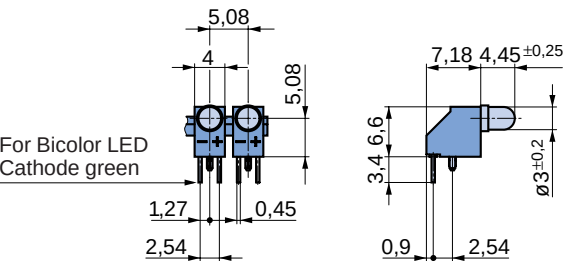
## Description Bicolor LED

Bicolor LEDs contain two semiconductors connected in antiparallel in the diffused white housing. Light red or green depending on the polarity of the voltage applied.

## Contact arrangement



## Single/Double-height LED-Arrays Bicolor



# LED-Arrays

## Features

- Space-saving assembly thanks to small-size components
  - Adapted to DIN 41494, steps of 2,54 mm (0,1")
  - Assembly is quick and easy
- No additional fixings are required  
Precise positioning  
Soldering and cleaning by machine is possible  
Available in blocks, ready for assembly  
Tinned terminals

## Technical data

### Temperature range

Storage temperature: – 40 °C to + 80 °C  
Operating temperature: – 20 °C to + 70 °C

### Main body material

high-quality temperature-resistant thermoplastic

### Main body material

high-quality, temperature-resistant thermoplastic

### Soldering temperature

≤ 5 s / ≤ 260 °C  
Reflow version on request

## LED-Arrays with LED red, green, yellow

| Electrical data (HP-LED 2 mA (09H....-..))     | red                                      | yellow                                   | green                                    |
|------------------------------------------------|------------------------------------------|------------------------------------------|------------------------------------------|
| Light intensity $I_V$ (at $I_F = 2$ mA)<br>mcd | min. 0,8 mcd                             | min. 0,9 mcd                             | min. 1,0                                 |
| Forward voltage $U_F$ (at $I_F = 2$ mA)        | typ. 2,1 mcd<br>typ. 1,8 V<br>max. 2,0 V | typ. 1,6 mcd<br>typ. 1,9 V<br>max. 2,5 V | typ. 2,1 mcd<br>typ. 1,8 V<br>max. 2,2 V |
| Max. conducted current $I_F$                   | 7 mA                                     | 7 mA                                     | 7 mA                                     |
| Reverse voltage $U_R$ ( $I_R = 50$ µA)         | 5,0 V                                    | 5,0 V                                    | 5,0 V                                    |
| Viewing angle (50% $I_V$ )                     | 50°                                      | 50°                                      | 50°                                      |
| Wave length (at $I_F = 2$ mA)                  | 626 nm                                   | 585 nm                                   | 569 nm                                   |
| Dissipated power                               | 24 mW                                    | 36 mW                                    | 24 mW                                    |

| Electrical data (HP-LED 10 mA (09H....-..))     | red                                    | yellow                                 | green                                  |
|-------------------------------------------------|----------------------------------------|----------------------------------------|----------------------------------------|
| Light intensity $I_V$ (at $I_F = 10$ mA)<br>mcd | min. 3,4 mcd                           | min. 3,6 mcd                           | min. 2,6                               |
| Forward voltage $U_F$ (at $I_F = 10$ mA)        | typ. 7 mcd<br>typ. 1,9 V<br>max. 2,4 V | typ. 7 mcd<br>typ. 2,0 V<br>max. 2,4 V | typ. 7 mcd<br>typ. 2,1 V<br>max. 2,7 V |
| Max. conducted current $I_F$                    | 30 mA                                  | 20 mA                                  | 30 mA                                  |
| Reverse voltage $U_R$ ( $I_R = 50$ µA)          | 5,0 V                                  | 5,0 V                                  | 5,0 V                                  |
| Viewing angle (50% $I_V$ )                      | typ. 60°                               | typ. 60°                               | typ. 60°                               |
| Wave length (at $I_F = 10$ mA)                  | 626 nm                                 | 585 nm                                 | 569 nm                                 |

## Special options to LED-arrays

To order a special option please use the order form. Please specify your requirements and fax it to your local contact or to Elma.

1 mm = 0.04 inch

1 inch = 25.4 mm

# LED-Arrays

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## LED-Arrays with LED blue and bicolor

| Electrical data                             | red/green                   | yellow/green               |
|---------------------------------------------|-----------------------------|----------------------------|
| Light intensity $I_V$ (at $I_F = 20$ mA)    | min. 2,5 mcd<br>typ. 10 mcd | min. 2,5 mcd<br>typ. 9 mcd |
| Forward voltage $U_F$ (at $I_F = 20$ mA)    | typ. 2,1 V<br>max. 3 V      | typ. 2,1 V<br>max. 2,8 V   |
| Max. conducted current $I_F$                | 25 mA                       | 20 mA                      |
| Reverse voltage $U_R$ ( $I_R = 50$ $\mu$ A) | 5,0 V                       | 5,0 V                      |
| Viewing angle (50% $I_V$ )                  | typ. 100°                   | typ. 80°                   |
| Wave length (at $I_F = 20$ mA)              | 567/650 nm                  | 569/588 nm                 |

Electrical data to LED blue on request.

### Special options to LED-Arrays

To order a special option please use the order form. Please specify your requirements and fax it to your local contact or to Elma.

1 mm = 0.04 inch

1 inch = 25.4 mm

# Order form to LED-Arrays

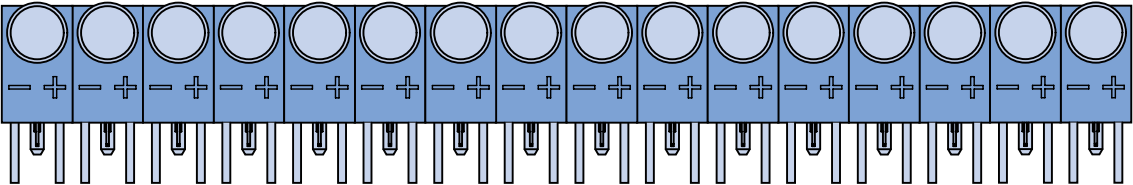
Copy – Fill in – Fax

☐ Quote request    ☐ Order

|                      |                          |                                             |                                                              |
|----------------------|--------------------------|---------------------------------------------|--------------------------------------------------------------|
| Company              |                          | Customer No.                                |                                                              |
| Address              |                          | Phone                                       |                                                              |
| Name                 |                          | Fax                                         |                                                              |
|                      |                          | e-mail                                      |                                                              |
| Quantity             |                          | Requesttd delivery date                     |                                                              |
| Similar to order No. |                          | Single-height LED-Arrays                    | 2 mA <input type="checkbox"/> 10 mA <input type="checkbox"/> |
| row of 1             | <input type="checkbox"/> | Double-height LED-Arrays                    | 2 mA <input type="checkbox"/> 10 mA <input type="checkbox"/> |
| row of 2             | <input type="checkbox"/> | Single-height LED-Arrays without guide pins | <input type="checkbox"/>                                     |
| row of 4             | <input type="checkbox"/> | Double-height LED-Arrays without guide pins | <input type="checkbox"/>                                     |
| row of 8             | <input type="checkbox"/> |                                             |                                                              |
| row of 16            | <input type="checkbox"/> |                                             |                                                              |
| special row of _____ |                          |                                             |                                                              |

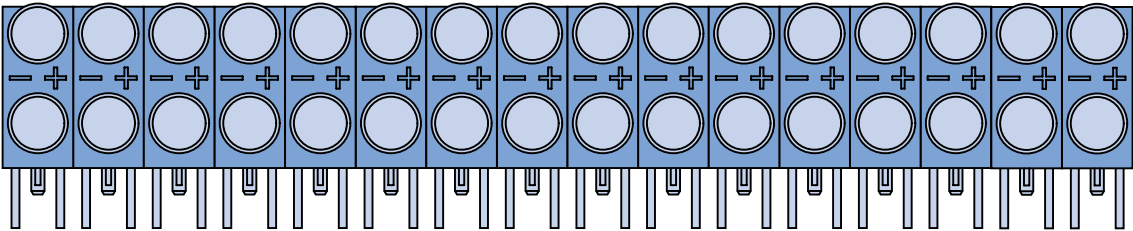
## Special loading of Elma-LED-Arrays

Single-height LED-Arrays



- = red
- = yellow
- = green
- = bicolor red/green
- = bicolor yellow/green
- = blue
- = empty

Double-height LED-Arrays



Remarks:

