

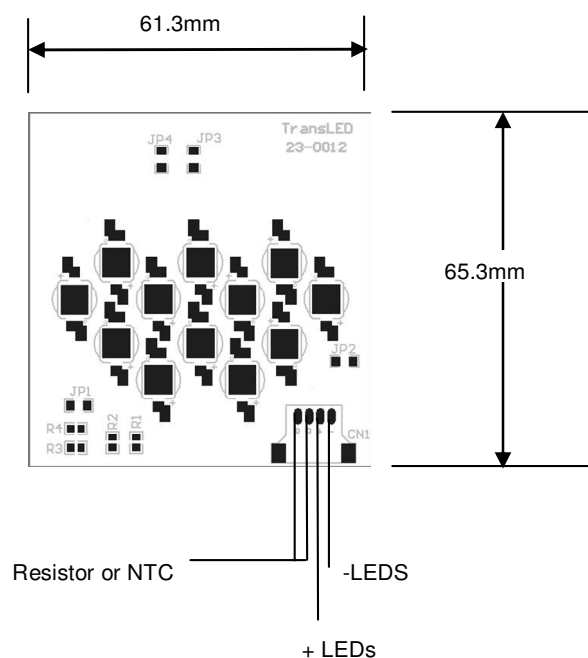
# WORLDWIDE

## TransLED Hi- Flux 12- up and 18- up LED Modules

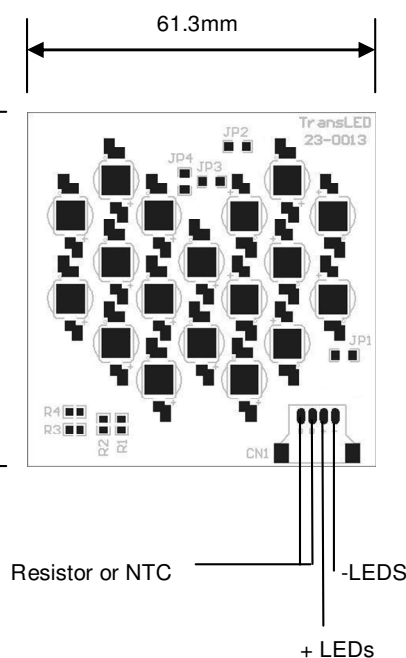


### Mechanical Dimensions

**Figure 1a) Hi-Flux 12-Up**



**Figure 1b) Hi-Flux 18-Up**

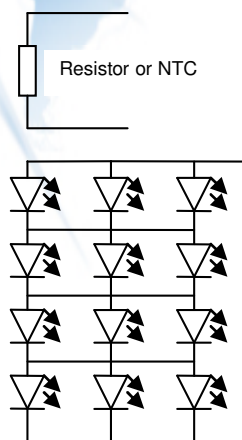


- PCB thickness = 1.6mm
- PCB Material = Metal Core PCB
- Total height include 4 pins 2mm pitch AMP type connector with PCB =7.4mm.

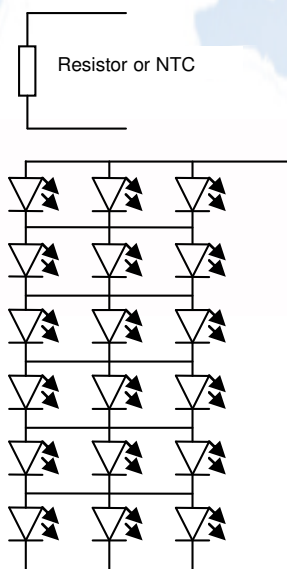
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## Circuit Diagram

**Hi-Flux 12-Up**



**Hi-Flux 18-Up**



## Flux Characteristic at Junction Temperature, TA=25°C

| Product            | Colour      | Part no         | Luminous Flux<br>$\Phi_v$<br>Min (lm) | Luminous Flux<br>$\Phi_v$<br>Typ (lm) | Test<br>Current<br>$I_f$ | Dom Wavelength<br>or Colour Temp<br>(nm or °K) | Viewing Angle<br>per LED<br>(degree) |
|--------------------|-------------|-----------------|---------------------------------------|---------------------------------------|--------------------------|------------------------------------------------|--------------------------------------|
| Hi- Flux<br>12- Up | Red         | CM-200LM012-RED | 280                                   | 410                                   | 1200 mA                  | 625 (-5/+7)                                    | 120                                  |
|                    | Red- Orange | CM-200LM012-ORN | 336                                   | 480                                   | 1200 mA                  | 617 (-5/+7)                                    | 120                                  |
|                    | Amber       | CM-200LM012-AMB | 250                                   | 390                                   | 1200 mA                  | 590 (-7/+5)                                    | 120                                  |
|                    | Green       | CM-200LM012-GRN | 280                                   | 450                                   | 1050 mA                  | 528 (-9/+9)                                    | 120                                  |
|                    | Cyan        | CM-200LM012-CYN | 210                                   | 300                                   | 1050 mA                  | 505 (-6/+6)                                    | 120                                  |
|                    | Blue        | CM-200LM012-BLU | 60                                    | 90                                    | 1050 mA                  | 470 (-6/+6)                                    | 120                                  |
|                    | Cool White  | CM-200LM012-WHT | 250                                   | 350                                   | 1050 mA                  | 5600 <sup>1</sup> (Typ)                        | 120                                  |
|                    | Warm White  | CM-200LM012-WWT | 180                                   | 280                                   | 1050 mA                  | 3250 <sup>1</sup> (Typ)                        | 120                                  |
| Hi- Flux<br>18- Up | Red         | CM-200LM018-RED | 430                                   | 620                                   | 1200 mA                  | 625 (-5/+7)                                    | 120                                  |
|                    | Red- Orange | CM-200LM018-ORN | 500                                   | 710                                   | 1200 mA                  | 617 (-5/+7)                                    | 120                                  |
|                    | Amber       | CM-200LM018-AMB | 370                                   | 590                                   | 1200 mA                  | 590 (-7/+5)                                    | 120                                  |
|                    | Green       | CM-200LM018-GRN | 430                                   | 680                                   | 1050 mA                  | 528 (-9/+9)                                    | 120                                  |
|                    | Cyan        | CM-200LM018-CYN | 320                                   | 450                                   | 1050 mA                  | 505 (-6/+6)                                    | 120                                  |
|                    | Blue        | CM-200LM018-BLU | 90                                    | 140                                   | 1050 mA                  | 470 (-6/+6)                                    | 120                                  |
|                    | Cool White  | CM-200LM018-WHT | 370                                   | 530                                   | 1050 mA                  | 5600 <sup>1</sup> (Typ)                        | 120                                  |
|                    | Warm White  | CM-200LM018-WWT | 270                                   | 430                                   | 1050 mA                  | 3250 <sup>2</sup> (Typ)                        | 120                                  |

<sup>1</sup> CIE Coordinates x = 0,33 y = 0,33 (Typ)

<sup>2</sup> CIE Coordinates x = 0,42 y = 0,40 (Typ)

### 12-UP and 18-UP Electrical Characteristic at Junction Temperature, $T_A=25^\circ\text{C}$

| Product       | Forward Voltage<br>$V_f$<br>(V) |      |      | Temp Coefficient<br>of $V_f$<br>$-10^\circ\text{C} \leq T \leq 100^\circ\text{C}$<br>(mV/°C) | Temp Resistance<br>Junction to Board<br>$R_{\theta JB}$<br>(°C/W) | Test Current<br>$I_f$<br>(mA) |
|---------------|---------------------------------|------|------|----------------------------------------------------------------------------------------------|-------------------------------------------------------------------|-------------------------------|
| <b>12- Up</b> | Min                             | Typ  | Max  |                                                                                              |                                                                   |                               |
| Red           | 8                               | 8,8  | 10,4 | -10                                                                                          | 1,7                                                               | 1200                          |
| Red- Orange   | 8                               | 8,8  | 10,4 | -10                                                                                          | 1,7                                                               | 1200                          |
| Amber         | 8                               | 8,8  | 10,4 | -10                                                                                          | 1,7                                                               | 1200                          |
| Green         | 12                              | 15,2 | 16,4 | -14                                                                                          | 1,2                                                               | 1050                          |
| Cyan          | 12                              | 15,2 | 16,4 | -14                                                                                          | 1,2                                                               | 1050                          |
| Blue          | 12                              | 15,2 | 16,4 | -16                                                                                          | 1,2                                                               | 1050                          |
| Cool White    | 12                              | 15,2 | 16,4 | -16                                                                                          | 1,2                                                               | 1050                          |
| Warm White    | 12                              | 15,2 | 16,4 | -16                                                                                          | 1,2                                                               | 1050                          |
| <b>18- Up</b> |                                 |      |      |                                                                                              |                                                                   |                               |
| Red           | 12                              | 13,2 | 15,6 | -15                                                                                          | 1,1                                                               | 1200                          |
| Red- Orange   | 12                              | 13,2 | 15,6 | -15                                                                                          | 1,1                                                               | 1200                          |
| Amber         | 12                              | 13,2 | 15,6 | -15                                                                                          | 1,1                                                               | 1200                          |
| Green         | 18                              | 22,8 | 24,6 | -20                                                                                          | 0,8                                                               | 1050                          |
| Cyan          | 18                              | 22,8 | 24,6 | -20                                                                                          | 0,8                                                               | 1050                          |
| Blue          | 18                              | 22,8 | 24,6 | -24                                                                                          | 0,8                                                               | 1050                          |
| Cool White    | 18                              | 22,8 | 24,6 | -24                                                                                          | 0,8                                                               | 1050                          |
| Warm White    | 18                              | 22,8 | 24,6 | -24                                                                                          | 0,8                                                               | 1050                          |

### Maximum Ratings

| Parameter                                                                                         | HiFLUX<br>12-UP          |                            | HiFLUX<br>18-UP          |                            |
|---------------------------------------------------------------------------------------------------|--------------------------|----------------------------|--------------------------|----------------------------|
|                                                                                                   | Red/Red-Orange/<br>Amber | Green/Cyan/<br>Blue/ White | Red/Red-Orange/<br>Amber | Green/Cyan/<br>Blue/ White |
| Operating temperature range, $T_{op}$ (°C)                                                        | -40 to +100              | -40 to +100                | -40 to +100              | -40 to +100                |
| Storage temperature range, $T_{sto}$ (°C)                                                         | -40 to +100              | -40 to +100                | -40 to +100              | -40 to +100                |
| LED Junction temperature, $T_j$ (°C)                                                              | 125                      | 125                        | 125                      | 125                        |
| DC Forward Current @ $T_a = 25^\circ\text{C}$ (mA)                                                | 1500                     | 1500                       | 1500                     | 1500                       |
| Surge Current, $I_{FM} \uparrow \leq 10\mu\text{s}$ , $D = 0,005$ , $T_a = 25^\circ\text{C}$ (mA) | 6000                     | 4500                       | 6000                     | 4500                       |
| Reverse Voltage, $V_R$ , $T_a = 25^\circ\text{C}$ (V)                                             | 48                       | NA                         | 72                       | NA                         |
| Power Consumption, $P_{tot}$ (W), $T_a = 25^\circ\text{C}$                                        | 13                       | -20                        | 20                       | -31                        |

NA= Not recommended for reverse voltage operation

