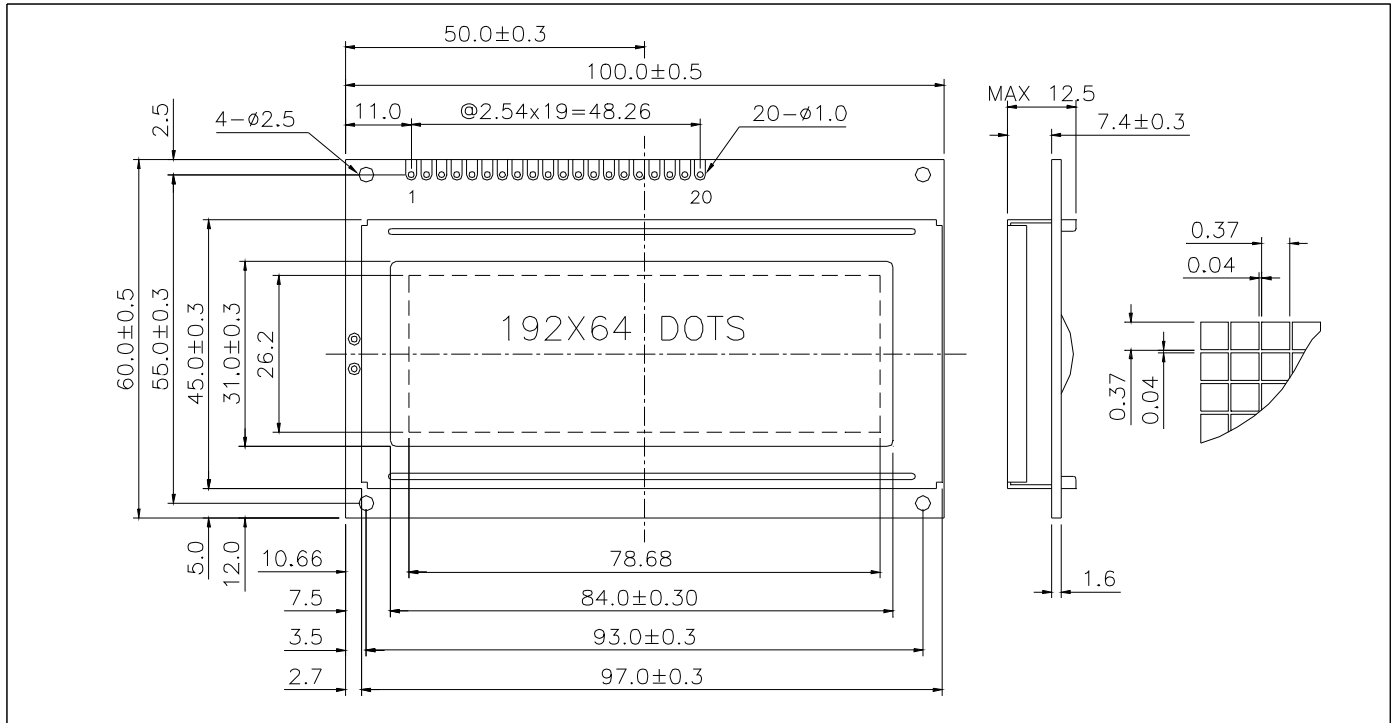


# LG192643-DW 192 x 64 dots white led backlight



## ABSOLUTE MAXIMUM RATINGS

| Item                  | Symbol                            | Min. | Max.                  | Unit |
|-----------------------|-----------------------------------|------|-----------------------|------|
| Supply Voltage(Logic) | V <sub>DD</sub> - V <sub>SS</sub> | -0.3 | 7.0                   | V    |
| Supply Voltage(LCD)   | V <sub>BD</sub> - V <sub>O</sub>  | -0.3 | 19.0                  | V    |
| Input Voltage         | V <sub>I</sub>                    | -0.3 | V <sub>DD</sub> + 0.3 | V    |
| Operating Temp.       | T <sub>opr</sub>                  | -20  | 70                    | °C   |
| Storage Temp.         | T <sub>stg</sub>                  | -30  | 80                    | °C   |

## MECHANICAL DATA

| Item                      | Nominal Dimensions  | Unit |
|---------------------------|---------------------|------|
| Module Size ( W x H x T ) | 100.0 x 60.0 x 12.5 | mm   |
| Viewing Area ( W x H )    | 84.0 x 31.0         | mm   |
| Dot Pitch ( W x H )       | 0.41 x 0.41         | mm   |
| Dot Size ( W x H )        | 0.37 x 0.37         | mm   |
| Weight                    | Approx. 80          | g    |

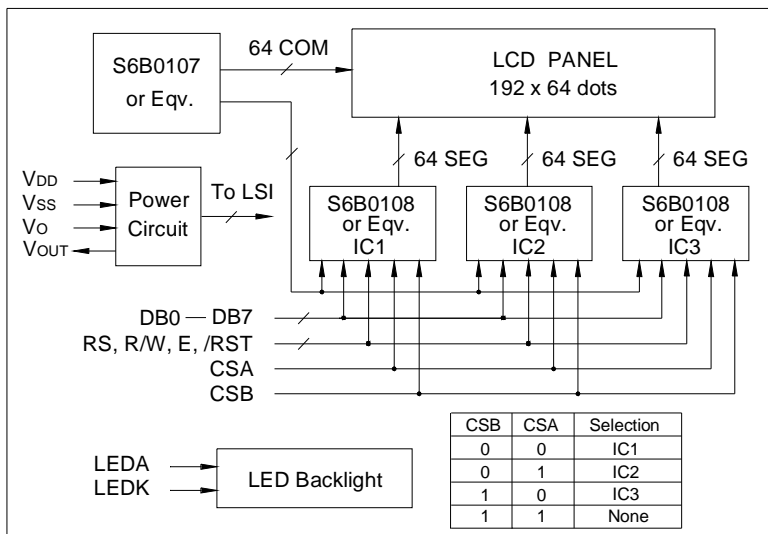
## ELECTRICAL CHARACTERISTICS ( V<sub>DD</sub>=5V±0.25V )

| Item                | Symbol                           | Test Condition           | Min. | Typ. | Max.            | Unit |
|---------------------|----------------------------------|--------------------------|------|------|-----------------|------|
| Input High Voltage  | V <sub>IH</sub>                  | --                       | 2.0  | --   | V <sub>DD</sub> | V    |
| Input Low Voltage   | V <sub>IL</sub>                  | --                       | -0.3 | --   | 0.8             | V    |
| Output High Voltage | V <sub>OH</sub>                  | I <sub>OH</sub> = -0.2mA | 2.4  | --   | V <sub>DD</sub> | V    |
| Output Low Voltage  | V <sub>OL</sub>                  | I <sub>OL</sub> = 1.6mA  | 0    | --   | 0.4             | V    |
| Supply Current      | I <sub>DD</sub>                  | V <sub>DD</sub> = 5.0V   | --   | 7.0  | 10.0            | mA   |
| LCD Driving Voltage | V <sub>BD</sub> - V <sub>O</sub> | T <sub>a</sub> =25°C     | --   | 12.7 | --              | V    |

## PIN CONNECTIONS

| Pin | Symbol           | Level | Function                       |
|-----|------------------|-------|--------------------------------|
| 1   | DB7              | H/L   | Data bus line                  |
| 2   | DB6              | H/L   |                                |
| 3   | DB5              | H/L   |                                |
| 4   | DB4              | H/L   |                                |
| 5   | DB3              | H/L   |                                |
| 6   | DB2              | H/L   |                                |
| 7   | DB1              | H/L   |                                |
| 8   | DB0              | H/L   |                                |
| 9   | E                | H,H>L | Enable Signal                  |
| 10  | R/W              | H/L   | H : Read L : Write             |
| 11  | RS               | H/L   | H : Data L : Instruction code  |
| 12  | V <sub>O</sub>   | --    | Operating voltage for LCD      |
| 13  | V <sub>DD</sub>  | +5V   | Power supply for logic         |
| 14  | V <sub>SS</sub>  | 0V    | GND                            |
| 15  | CSA              | H/L   | Chip selection signal A        |
| 16  | CSB              | H/L   | Chip selection signal B        |
| 17  | V <sub>OUT</sub> | -10V  | Output voltage for LCD driving |
| 18  | /RST             | L     | Reset signal, active "L"       |
| 19  | LEDA             | +5V   | Power supply for LED backlight |
| 20  | LEDK             | 0V    |                                |

## BLOCK DIAGRAM



## LED BACKLIGHT SPECIFICATIONS (T<sub>a</sub>=25°C)

| Item            | Symbol         | Typ.  | Max. | Unit |
|-----------------|----------------|-------|------|------|
| Forward Voltage | V <sub>f</sub> | 3.1   | 3.3  | V    |
| Forward Current | I <sub>f</sub> | 45    | --   | mA   |
| LED Color       |                | White |      |      |