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ELECTRICAL CHARACTERISTICS

- | | | SYMBOL | CONDITION | MIN. | TYP. | MAX. | UNIT |
|-----------------------|--------------|---------------------|-----------|------|------|-----------------|------|
| LCD Operating Voltage | | V _{DD-V0} | T=0°C | - | 4.8 | - | V |
| | | | T=25°C | - | 4.5 | - | V |
| | | | T=50°C | - | 4.2 | - | V |
| Supply Voltage | | V _{DD-VSS} | - | 4.7 | 5 | 5.3 | V |
| Supply Current | | I _{DD} | - | - | 2 | 4 | mA |
| Input | "HIGH" Level | V _{IH} | - | 2.2 | - | V _{DD} | V |
| Voltage | "LOW" Level | V _{IL} | - | 0 | - | 0.6 | V |
| Output | "HIGH" Level | V _{OH} | - | 2.4 | - | - | V |
| Voltage | "LOW" Level | V _{OL} | - | - | - | 0.4 | V |

ITEM	DIMENSIONS	UNIT
Module Size (W x H x T)	122.0 x 44.0 x 8.8 (13.0 LED)	mm
Viewing Area (W x H)	99.0 x 24.0	mm
Character Size (W x H)	4.84 x 9.63	mm
Character Pitch (W x H)	6.0 x 10.37	mm
Dot Size (W x H)	0.92 x 1.16	mm
Dot Pitch (W x H)	0.98 x 1.21	mm

NO.	SYMBOL	FUNCTION	NO.	SYMBOL	FUNCTION
1	V _{SS}	Supply Ground	9	DB2	Data Bit 2
2	V _{DD}	Supply Voltage	10	DB3	Data Bit 3
3	V _O	Contrast Adj.	11	DB4	Data Bit 4
4	RS	Register Select	12	DB5	Data Bit 5
5	R/W	Read/Write	13	DB6	Data Bit 6
6	E	Enable Signal	14	DB7	Data Bit 7
7	DB0	Data Bit 0			
8	DB1	Data Bit 1			

The diagram illustrates the internal components and connections of the LCD module. It features four main blocks: the LCD CONTROLLER, the LCD PANEL, the LCD SEGMENT DRIVER, and the LED BACKLIGHT.

- LCD CONTROLLER:** Receives data inputs DB7 and DB0. It has control inputs E, R/W, RS, Vo, VDD, and Vss. It outputs COM16 to the LCD PANEL, SEG40 to the LCD SEGMENT DRIVER, and a 4-bit signal to the LCD SEGMENT DRIVER.
- LCD PANEL:** Receives COM16 from the LCD CONTROLLER and SEG40 from the LCD SEGMENT DRIVER.
- LCD SEGMENT DRIVER:** Receives SEG40 and a 4-bit signal from the LCD CONTROLLER. It outputs SEG40 to the LCD PANEL.
- LED BACKLIGHT:** Receives control signals A and K from the LCD CONTROLLER.

[illegible]