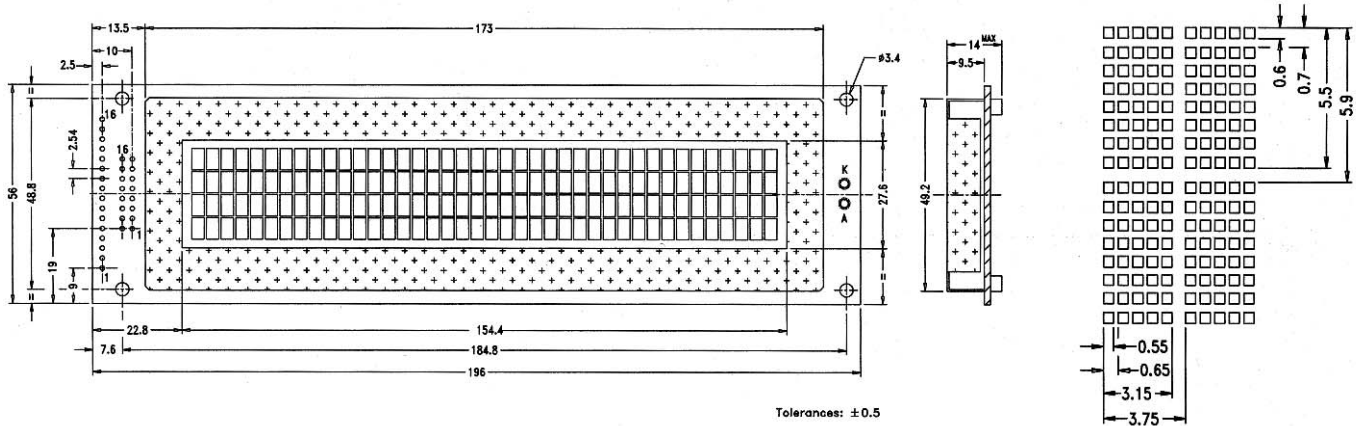


BT 44005

4 Lines x 40 Characters



Dimensions [mm]

Dot Size

MECHANICAL DATA

Parameter	Width x Height x Depth	Unit
Outline Dimensions	196 x 56 x 11 (with LED: 14)	mm
Effective viewing area	154.4 x 27.6	mm
Dot Size	0.55 x 0.6	mm
Dot Pitch	0.65 x 0.70	mm
Character Matrix	5 x 7	dots
Character Size	3.15 x 5.90	mm
Character Pitch	3.75 x 5.90	mm
Weight	Approximate 129 (with LED: 169)	g

ABSOLUTE MAXIMUM RATINGS

Parameter	Symbol	Min.	Max.	Unit
Supply Voltage (Logic)	V_{DD} ($V_{DD}-V_{SS}$)	0	7.0	V
Supply Voltage (LCD Driver)	V_{EE} ($V_{DD}-V_0$)	0	13.5	V
Input Voltage	V_I	V_{SS}	V_{DD}	V
Operating Temperature	T_{OP}	See Page 11		°C
Storage Temperature	T_{ST}	See Page 11		°C

ELECTRICAL CHARACTERISTICS

Condition: $T_a = 25^\circ\text{C}$, $V_{DD} = 5.0 \pm 0.25$ V

Parameter	Symbol	Min.	Typ.	Max.	Unit
Input Voltage HIGH	V_{INH}	2.2	---	---	V
Input Voltage LOW	V_{INL}	---	---	0.6	V
Output Voltage HIGH	V_{OH}	2.4	---	---	V
Output Voltage LOW	V_{OL}	---	---	0.4	V
Supply Current (Logic)	I_{DD}	---	3.0	---	mA
Supply Current (LCD Driver)	I_0	---	0.5	---	mA
Duty Ratio	---	---	1/16	---	---

LED BACKLIGHT (STANDARD COLOR GREEN)

Parameter	Symbol	Min.	Typ.	Max.	Unit
Supply Voltage	V_F	3.8	4.1	4.4	V
Supply Current	I_F [at 25°C]	---	340	460	mA
Lamp Style	---	---	04	---	---
LED Segments	---	---	36	---	pcs

PIN TABLE

Pin	Symbol	Signal Description
1	V_{SS}	GND (0 V)
2	V_{DD}	Power Supply (5 V)
3	V_0	Supply Voltage (LCD Driver)
4	RS	Register Select - LOW = Instruction, High = Data
5	R / \bar{W}	Read / Write LOW = MPU to LCM, HIGH = LCM to MPU
6	NC	Not Connected
7 to 14	DB ₀ to DB ₇	Data Bus - Software selectable 4 or 8 Bit Mode
15	E 1	Enable Signal of HD 44780 No.1
16	E 2	Enable Signal of HD 44780 No.2
A	+ V_{LED}	Anode of LED Unit
K	- V_{LED}	Cathode of LED Unit

ADDITIONAL INFORMATION

- ◆ Display Connector Type - without LED: 1 x 16 pin or 2 x 8 pin
- ◆ Display Connector Type - with LED: See Drawing
- ◆ Controller Type - SPLC 780 (2) or compatible

BLOCK DIAGRAM

