

## TC2002A-01

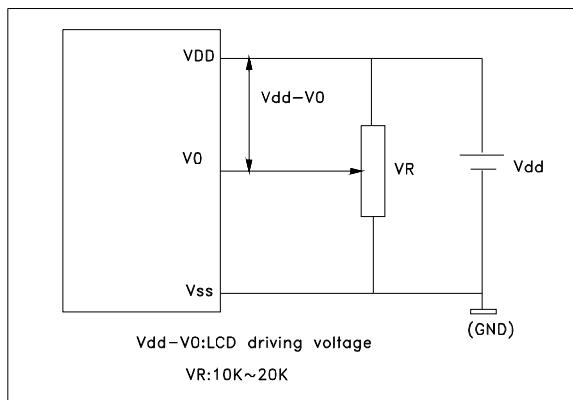
### ■ Series

Display Format	20 Characters X 2 Lines
Drive Method	1/16 Duty , 1/5 Bias
LCD Type	STN/Yellow green/Positive Transflective
LED Backlight	Yellow
Viewing direction	6: 00
Operating Temperature	-10°C~+60°C
Storage Temperature	-20°C~+70°C

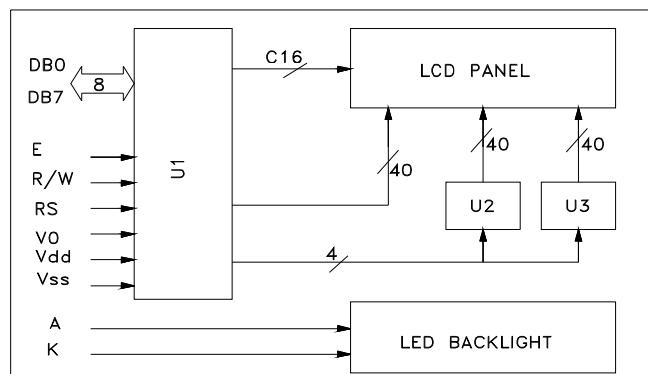
### ■ Electrical Characteristics

ITEM	Symbol	Condition	Standard value			UNIT
			Min.	Typ.	Max.	
Supply Voltage For Logic	V <sub>DD</sub> -V <sub>SS</sub>	--	4.5	5.0	5.5	V
Supply Voltage For LCD	V <sub>DD</sub> -V <sub>0</sub>	--	--	4.7	--	V
Input High Voltage	V <sub>IH</sub>	--	3.5	--	5.0	V
Input Low Voltage	V <sub>IL</sub>	--	0	--	1.5	V
Output High Voltage	V <sub>OH</sub>	I <sub>OH</sub> =0.1mA	4.6	--	--	V
Output Low Voltage	V <sub>OL</sub>	I <sub>OL</sub> =0.1mA	--	--	0.4	V
Power Supply Current	I <sub>DD</sub>	V <sub>DD</sub> =5.0V	--	1.8	3.0	mA
With B/L	I <sub>LED</sub>	V <sub>LED</sub> =5.0V	--	140	280	mA

### ■ Power supply



### ■ Block Diagram



### ■ EXTERNAL DIMENSIONS AND DISPLAY PATTERN

