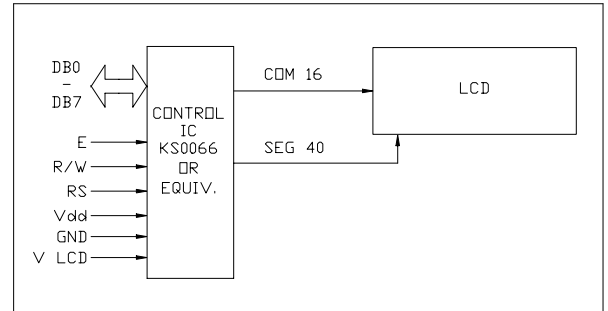


**Mechanical Specification**

ITEM	STANDARD VALUE	UNIT
Characters	16 x 1 Character	-
Module Dimension	80.0(W) x 36.0(H)x 11.5(T)	mm
Viewing Area	63.6(W) x 15.6(H)	mm
Dot Size	0.54(W) x 0.66(H)	mm
Character Size	3.07(W) x 6.56(H)	mm
Character Pitch	3.77(W) x 6.56(H)	mm
LCD Type	STN	
Driver Method	1/16 Duty , 1/5 Bias	
Viewing Direction	6 O'clock	
Controller IC	KS0066	

**Block Diagram**



**Absolute Maximum Ratings**

ITEM	SYMBOL	MIN.	TYP.	MAX.	UNIT
Operating	T <sub>OP</sub>	-10	-	+60	°C
Storage	T <sub>ST</sub>	-20	-	+70	°C
Input Voltage	V <sub>I</sub>	-0.3	-	V <sub>DD</sub> +0.3	V
Supply Voltage For	V <sub>DD</sub> -V <sub>SS</sub>	-0.3	-	6.0	V
Supply Voltage	V <sub>DD</sub> -V <sub>S</sub>	-0.3	-	7.0	V

**Electrical Characteristics**

ITEM	SYMBOL	CONDITION	MIN.	TYP.	MAX.	UNIT
Supply Voltage For Logic	V <sub>DD</sub> -V <sub>SS</sub>	Ta=25°C	-	5.0	5.5	V
Supply Voltage For LCD	V <sub>DD</sub> -V <sub>EE</sub> (V <sub>OP</sub> )		4.0	4.7	6.0	V
Input High Voltage			0.8 V <sub>DD</sub>	-	V <sub>DD</sub>	V
Input Low Voltage			0	-	0.2 V <sub>DD</sub>	V
Output High Voltage		I <sub>OH</sub> =-0.5mA	0.8 V <sub>DD</sub>	-	V <sub>DD</sub>	V
Output Low Voltage			0	-	0.2 V <sub>DD</sub>	V
Supply Current For Logic			-	1.0	3.0	mA

**Pin Assignment**

PIN#	1	2	3	4	5	6	7	8	9
Symbol	GND	VDD	V5	RS	R/W	E	DB0	DB1	DB2
PIN#	10	11	12	13	14	15	16		
Symbol	DB3	DB4	DB5	DB6	DB7	LED(+)	LED(-)		

