

DV series

DV-20410 20 characters x 4 lines

■ Mechanical Data

Item	Standard Value	Unit
Module Dimensions	146.0(W) X 62.5(H) X 10.5 (D)	mm
Viewing Area	123.0(W) X 42.5(H)	mm
Dot Size	0.92(W) X 1.10(H)	mm
Dot Pitch	0.96(W) X 1.16(H)	mm

■ Absolute Maximum Ratings

Item	Symbol	Standard Value			Unit
		Min.	Typ.	Max.	
Supply Voltage for Logic	$V_{dd}-V_{ss}$	-0.3	--	7.0	V
Supply Voltage for LCD Drive	$V_{dd}-V_{ee}$	$V_{dd}-13.5$	--	$V_{dd}+0.3$	V
Input Voltage	V_I	-0.3	--	$V_{dd}+0.3$	V
Operation Temperature	T_{opr}	0	--	50	°C
Storage Temperature	T_{stg}	-20	--	70	°C

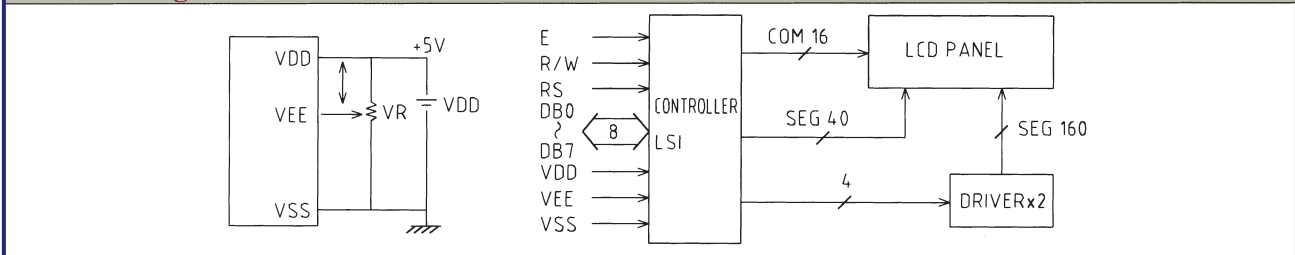
■ Electrical Characteristics

Item	Symbol	Condition	Standard Value			Unit
			Min.	Typ.	Max.	
Input "High" Voltage	V_{IH}		2.2	--	V_{dd}	V
Input "Low" Voltage	V_{IL}	$-I_{OH}=0.205mA$	0	--	0.6	V
Output "High" Voltage	V_{OH}	$I_{OL}=1.2mA$	2.4	--	V_{dd}	V
Output "Low" Voltage	V_{OL}		0	--	0.4	V
Supply Current	I_{dd}	$V_{dd} = 5V$	--	4.0	10.0	mA

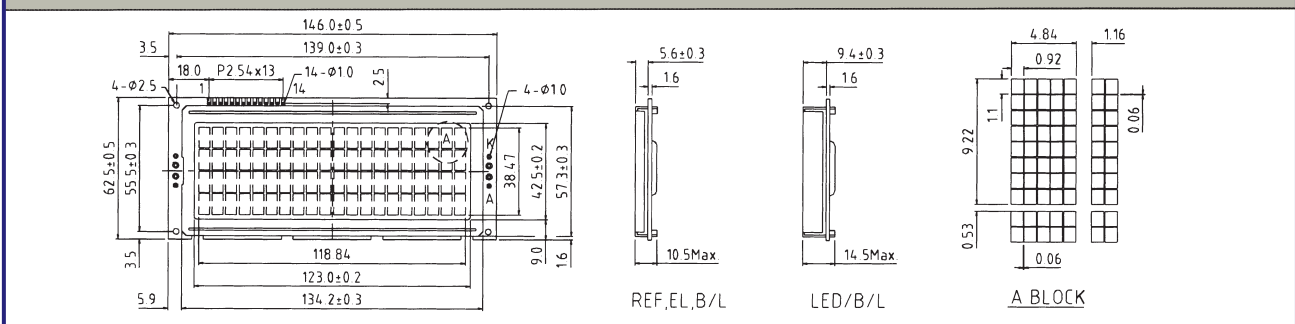
■ Pin Assignment

No.	Symbol	Function	No.	Symbol	Function
1	V_{SS}	GND,0V	8	DB1	Data Bus Line
2	V_{DD}	+5V	9	DB2	Data Bus Line
3	V_{EE}	For LCD Drive	10	DB3	Data Bus Line
4	RS	Function select	11	DB4	Data Bus Line
5	R/W	Read/Write	12	DB5	Data Bus Line
6	E	Enable signal	13	DB6	Data Bus Line
7	DB0	Data bus line	14	DB7	Data Bus Line

■ Block Diagram



■ External Dimensions



■ Option

LCD Type								Backlight Type			Built-in Control LSI		
S1	S2	W	N	R	F	M	H	EL	LED	CCFL	Touch Panel	KS-0066U or equivalent	
•	•			•	•		•	•					

Remarks: S1 : yellow-green STN LCD , S2 : gray STN LCD, W : black & white LCD, N : negative type LCD, R : reflective type LCD, F : transfective type LCD, M : transmissive type LCD, H : extended temperature type LCD (-20°C ~ 70°C)