

5×8
dots**DM1640**

(16 Characters × 4 Lines) 1/16 Duty

SANYO SEMICONDUCTOR CORP

Absolute maximum ratings

Parameter	Symbol	min.	max.	unit
Logic supply voltage	$V_{DD} - V_{SS}$	-0.3	7.0	V
LCD supply voltage	$V_{DD} - V_O$	-0.3	13.5	V
Input voltage	V_I	-0.3	$V_{DD} + 0.3$	V
Operating temperature	T_{opg}	0	+50	°C
Storage temperature	T_{stg}	-20	+70	°C

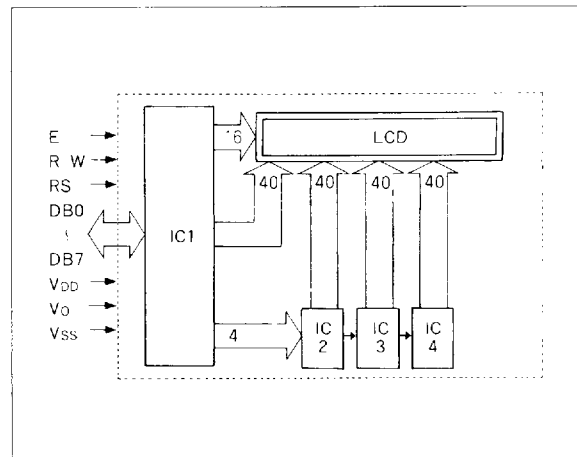
Electrical characteristics ($T_a = 25^\circ\text{C}$, $V_{DD} = 5.0 \pm 0.25\text{V}$)

Parameter	Symbol	Condition	min.	typ.	max.	unit
Input high-level voltage	V_{IH}	—	2.2	—	V_{DD}	V
Input low-level voltage	V_{IL}	—	0	—	0.6	V
Output high-level voltage	V_{OH}	$-I_{OH} = 0.2\text{mA}$	2.4	—	V_{DD}	V
Output low-level voltage	V_{OL}	$I_{OL} = 1.2\text{mA}$	0	—	0.4	V
Supply current	I_{DD}	—	—	1.5	3.0	mA

Pin function

No	Symbol	Function
1	V_{SS}	Gnd pin, 0V
2	V_{DD}	Positive power pin, +5V
3	V_O	LCD drive voltage input pin
4	RS	Data/instruction select input pin
5	R/W	Read/write select input pin
6	E	Enable input pin
7	DB 0	Data bus line (Lower 4 bits)
8	DB 1	
9	DB 2	
10	DB 3	
11	DB 4	Data bus line (Upper 4 bits)
12	DB 5	
13	DB 6	
14	DB 7	

*When interface data is 4 bits long, data is transferred using only 4 buses of DB4 to DB7.

Block diagram**Module dimensions**

(unit : mm)

Pattern dimensions