

ABSOLUTE MAXIMUM RATINGS

Item	Symbol	Min.	Max.	Unit
Supply Voltage (Logic)	Vdd - Vss	-0.3	7.0	V
Supply Voltage (LCD)	Vdd - V0	-0.3	25.0	V
Input Voltage	Vi	-0.3	Vdd + 0.3	V
Operating Temp.	T _{opr}	-20	70	°C
Storage Temp.	T _{stg}	-30	80	°C

MECHANICAL DATA

Item	Max.	Unit
Module Size (W X H X T)	54.0 X 50.0 X 9.5	mm
Viewing Area (W X H)	44.0 X 29.0	mm
Dot Pitch (W X H)	0.28 X 0.35	mm
Dot Size (W X H)	0.32 X 0.39	mm
View Angle	6 or 12 O'Clock	

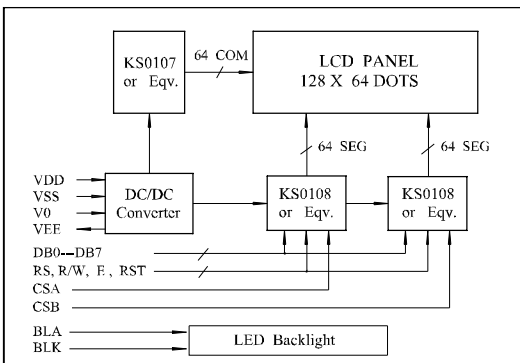
ELECTRICAL CHARACTERISTICS (Vdd=5V±0.25V)

Item	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Input High Voltage	V _{ih}	--	2.0	--	V _{dd}	V
Input Low Voltage	V _{il}	--	-0.3	--	0.8	V
Output High Voltage	V _{oh}	I _{oh} =-0.2mA	2.4	--	V _{dd}	V
Output Low Voltage	V _{ol}	I _{ol} =-1.6mA	0	--	0.4	V
Supply Current	I _{dd}	V _{dd} =5.0V	--	6.0	8.0	mA
LCD Driving Voltage	V _{dd} - V ₀	T _a =25°C	--	8.8	--	V

PIN CONNECTIONS

Pin	Symbol	Level	Function
1	VSS	0V	Power GND
2	VDD	+5V	Power supply for logic
3	V0	--	Operation voltage for LCD
4	RS	H/L	H:Data L:Instruction code
5	R/W	H/L	H:Read L:Write
6	E	H/L	Enable signal
7	DB0	H/L	Data bus line
8	DB1	H/L	
9	DB2	H/L	
10	DB3	H/L	
11	DB4	H/L	
12	DB5	H/L	
13	DB6	H/L	
14	DB7	H/L	
15	CSA	H	Chip selection for IC1,active"H"
16	CSB	H	Chip selection for IC2,active"H"
17	RST	L	Reset signal, active"L"
18	VEE	-10V	Output voltage for LCD driving
19	BLA	+5V	Power supply for LED backlight
20	BLK	0V	

BLOCK DIAGRAM



LCD Type

LCD Color	Backlight
Blue	LED/ White /3.1V
Gray	LED/ White /3.1V