



### PIN CONNECTIONS

Pin	Symbol	Level	Function
1	V <sub>SS</sub>	0V	GND
2	V <sub>DD</sub>	+5V	Power supply for logic
3	V <sub>O</sub>	-	Operating 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
14	DB7		
15	/CS1	L	Chip selection for IC1
16	/REST	L	Reset signal ,active “L”
17	/CS2	L	Chip selection for IC2
18	/CS3	L	Chip selection for IC3
19	V <sub>OUT</sub>	-	Out voltage for LCD driving
20	LEDA	+5V	Power supply for LED backlight

### MECHANICAL DATA

Item	Nominal Dimensions	Unit
Module Size ( W x H x T )	130.0X65.0X12.5	mm
Viewing Area ( W x H )	104.0X39.0	mm
Dot Pitch ( W x H )	0.508X0.508	mm
Dot Size ( W x H )	0.458X0.458	mm

### ABSOLUTE MAXIMUM RATINGS

Item	Symbol	Min.	Max.	Unit
Supply Voltage (Logic)	V <sub>DD</sub> -V <sub>SS</sub>	-0.3	7.0	V
Supply Voltage (LCD)	V <sub>DD</sub> -V <sub>O</sub>	-0.3	17.5	V
Input Voltage	V <sub>I</sub>	-0.3	V <sub>DD</sub> +0.3	V
Operating Temp.	T <sub>OPR</sub>	-20	70	
Storage Temp.	T <sub>STG</sub>	-30	80	

### ELECTRICAL CHARACTERISTICS ( V<sub>DD</sub>=5.0V, Ta=25 )

Item	Symbol	Min.	Typ.	Max.	Unit
Input High Voltage	V <sub>IH</sub>	0.8V <sub>DD</sub>	-	V <sub>DD</sub>	V
Input Low Voltage	V <sub>IL</sub>	0	-	0.8	V
Output High Voltage	V <sub>OH</sub>	2.4	-	V <sub>DD</sub>	V
Output Low Voltage	V <sub>OL</sub>	0	-	0.4	V
Supply Current	I <sub>DD</sub>	-	6	8	mA
LCD Driving Voltage	V <sub>DD</sub> -V <sub>O</sub>	-	12	-	V

### LED BACKLIGHT SPECIFICATIONS ( Ta=25 )

Item	Forward Voltage	Forward Current
YELLOW-GREEN	4.1V	300mA
White	3.1V	120mA

### NOTES:

1. Built-in KS0107/0108 controller
2. +5V/+3.3V power supply optional
3. Yellow green/blue mode optional