



PIN CONNECTIONS

Pin	Symbol	Level	Function
1	V _{SS}	0V	GND
2	V _{DD}	+5V	Power supply for logic
3	V _O	-	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
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	LEDA	+5V	Power supply for LED backlight
16	LEDK	0V	

NOTES:

- Built-in controller (KS0066 or Equivalent)
- LED can be driven by pin15, pin16 or A and K
- 5V/3.3V power supply optional

MECHANICAL DATA

Item	Nominal Dimensions	Unit
Module Size (W x H x T)	98.0X60.0X14.0	mm
Viewing Area (W x H)	76.0X26.0	mm
Character Size (W x H)	2.94X4.74	mm
Dot Size (W x H)	0.54X0.54	mm

ABSOLUTE MAXIMUM RATINGS

Item	Symbol	Min.	Max.	Unit
Supply Voltage (Logic)	V _{DD} -V _{SS}	-0.3	7.0	V
Supply Voltage (LCD)	V _{DD} -V _O	-0.3	13.0	V
Input Voltage	V _I	-0.3	V _{DD} +0.3	V
Operating Temp.	T _{OPR}	-20	70	
Storage Temp.	T _{STG}	-30	80	

ELECTRICAL CHARACTERISTICS (V_{DD}=5.0V, Ta=25)

Item	Symbol	Min.	Typ.	Max.	Unit
Input High Voltage	V _{IH}	2.2	-	V _{DD}	V
Input Low Voltage	V _{IL}	-0.3	-	0.6	V
Output High Voltage	V _{OH}	2.4	-	V _{DD}	V
Output Low Voltage	V _{OL}	0	-	0.4	V
Supply Current	I _{DD}	-	1.5	-	mA
LCD Driving Voltage	V _{DD} -V _O	-	5	-	V

LED BACKLIGHT SPECIFICATIONS (Ta=25)

Item	Forward Voltage	Forward Current
YELLOW-GREEN	4.1V	220mA
WHITE	3.1V	30mA