



PIN CONNECTIONS

Pin	Symbol	Level	Function
1	SDA	H/L	Serial data input terminal
2	Vss	0V	GND
3	SCK	H/L	Serial clock input terminal
4	/REST	L	Reset signal, active"L"
5	A0	H/L	"H" Data, "L" Instruction code
6	/CS	L	Chip select signal, active"L"
7	VDD	+3.3V	Power supply for logic
8	LEDA	+5.0V	Power supply for LED backlight
9	LEDK	0V	

NOTES:

1. Built-in controller
2. FSTN, COG

MECHANICAL DATA

Item	Nominal Dimensions	Unit
Module Size (W x H x T)	83.8 x 76.5 x 10.0	mm
Viewing Area (W x H)	60.0x60.0	mm
Dot Pitch (W x H)	0.34x0.34	mm
Dot Size (W x H)	0.32x0.32	mm

ABSOLUTE MAXIMUM RATINGS

Item	Symbol	Min.	Max.	Unit
Supply Voltage (Logic)	$V_{DD}-V_{SS}$	-0.3	4.0	V
Supply Voltage (LCD)	$V_{DD}-V_O$	-0.3	19.8	V
Input Voltage	V_I	-0.3	$V_{DD}+0.3$	V
Operating Temp.	T_{OPR}	-30	80	°C
Storage Temp.	T_{STG}	-40	90	°C

ELECTRICAL CHARACTERISTICS ($V_{DD}=5.0V, T_a=25^\circ C$)

Item	Sym.	Min.	Typ.	Max.	Unit
Input High Voltage	V_{IH}	$0.5V_{DD}$	3.3	V_{DD}	V
Input Low Voltage	V_{IL}	0	-	$0.2V_{DD}$	V
Output High Voltage	V_{OH}	2.4	-	V_{DD}	V
Output Low Voltage	V_{OL}	0	-	0.4	V
Supply Current	I_{DD}	-	1.64	3.28	mA
LCD Driving Voltage	V_0	-	16.5	-	V

LED BACKLIGHT SPECIFICATIONS ($T_a=25^\circ C$)

Item	Forward Voltage	Forward Current
WHITE	3.1V	60mA