



ABSOLUTE MAXIMUM RATINGS

Item	Symbol	Min.	Max.	Unit
Supply Voltage(Logic)	V _{DD} - V _{SS}	-0.3	5.6	V
Input Voltage	V _I	-0.3	V _{DD} + 0.3	V
Operating Temp.	T _{opr}	-40	80	°C
Storage Temp.	T _{stg}	-40	80	°C

MECHANICAL DATA

Item	Nominal Dimensions	Unit
Module Size (W x H x T)	98.0 x 60.0 x 9.5	mm
Viewing Area (W x H)	73.0 x 24.0	mm
Character Size (W x H)	2.97 x 4.77	mm
Dot Size (W x H)	0.57 x 0.57	mm
Weight	Approx. 38	g

ELECTRICAL CHARACTERISTICS (V_{DD}=3.3V to 5.5V)

Item	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Input High Voltage	V _{IH}	--	0.7V _{DD}	--	V _{DD}	V
Input Low Voltage	V _{IL}	--	0	--	0.3V _{DD}	V
Output High Voltage	V _{OH}	I _{OH} = -0.5mA	0.7V _{DD}	--	V _{DD}	V
Output Low Voltage	V _{OL}	I _{OL} = 0.5mA	0	--	0.3V _{DD}	V
OLED Driving Voltage	V _{PP}	--	--	12.0	12.5	V
Supply Current	I _{DD} ^{Note 1}	V _{DD} = 5.0V	--	42.0	52.0	mA
	I _{DD} ^{Note 2}	V _{DD} = 3.3V	--	35.0	44.0	mA

Note 1: 50% display area turned on, contrast register is set to 80H
 Note 2: 50% display area turned on, contrast register is set to CFH

PIN CONNECTIONS (CN1/CN2)

Pin	Symbol	Level	Function
1	V _{SS}	0V	GND
2	V _{DD}	3.3V to 5.5V	Power supply for logic JV1 open : V _{DD} =3.5V to 5.5V JV1 close : V _{DD} =3.3V to 3.5V
3	NC	--	No connection
4	RS (SA0)	H/L	Data or command selection for 4-wire SPI RS="H" : Display data RS="L" : Command code Connect RS to V _{SS} for 3-wire SPI mode Slave address SA0 for I2C mode
5	RES	L	Reset signal. Active "L".
6	/CS (NC)	L --	Chip selection for 3/4-wire SPI mode. Active "L". No connection for I2C mode.
7	SCL	H/L	Serial clock input for 3/4-wire SPI mode. Data is shifted at the rising edge of SCL. Serial clock input for I2C mode.
8	SI (SDA)	H/L	Serial data input for 3/4-wire SPI Serial data input/output for I2C
9	NC	--	No connection
10	NC	--	No connection
11	NC	--	No connection
12	NC	--	No connection
13	NC	--	No connection
14	NC	--	No connection
15-16	NC	--	No connection

BLOCK DIAGRAM

