

ABSOLUTE MAXIMUM RATINGS

Item	Symbol	Min.	Max.	Unit
Supply Voltage (Logic)	V _{DD} - V _{SS}	-0.3	4.0	V
Supply Voltage (LCD)	V _{OUT} - V _{SS}	-0.3	18.0	V
Input Voltage	V _I	-0.3	V _{DD} + 0.3	V
Operating Temp.	T _{opr}	-20	70	°C
Storage Temp.	T _{stg}	-30	80	°C

MECHANICAL DATA

Item	Nominal Dimensions	Unit
Module Size (W x H x T)	56.0 x 39.6 x 9.2	mm
Viewing Area (W x H)	50.4 x 28.0	mm
Dot Pitch (W x H)	0.33 x 0.33	mm
Dot Size (W x H)	0.31 x 0.31	mm
Weight	Approx. 18	g

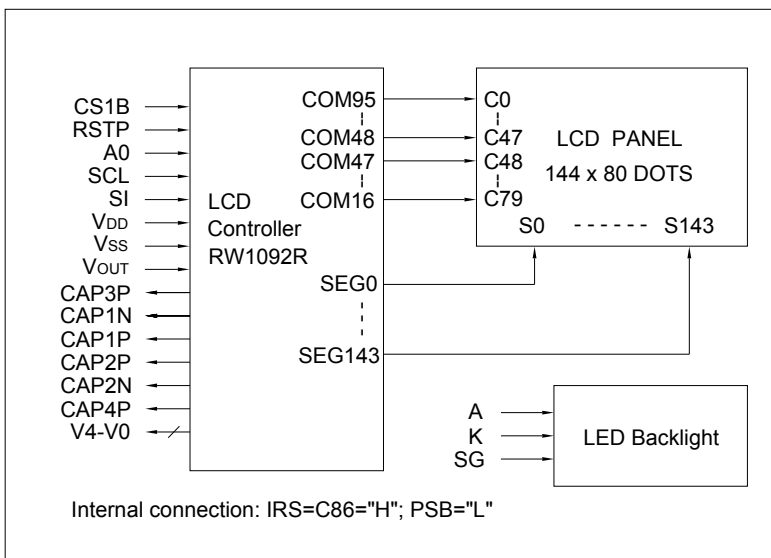
ELECTRICAL CHARACTERISTICS (V_{DD}=3.2V to 3.6V)

Item	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Input High Voltage	V _{IH}	--	0.8V _{DD}	--	V _{DD}	V
Input Low Voltage	V _{IL}	--	0	--	0.2V _{DD}	V
Output High Voltage	V _{OH}	I _{OH} = -0.1mA	0.8V _{DD}	--	V _{DD}	V
Output Low Voltage	V _{OL}	I _{OL} = 0.1mA	0	--	0.2V _{DD}	V
Supply Current	I _{DD}	V _{DD} = 3.3V	--	0.6	1.5	mA
LCD Driving Voltage	V ₀ - V _{SS}	T _a =25°C	--	10.5	--	V

PIN CONNECTIONS

Pin	Symbol	Level	Function
1	V ₀	--	Power supply for LCD drive
2	V ₁	--	Power supply for LCD drive
3	V ₂	--	Power supply for LCD drive
4	V ₃	--	Power supply for LCD drive
5	V ₄	--	Power supply for LCD drive
6	CAP4P	--	Capacitor 4 positive connection
7	CAP2N	--	Capacitor 2 negative connection
8	CAP2P	--	Capacitor 2 positive connection
9	CAP1P	--	Capacitor 1 positive connection
10	CAP1N	--	Capacitor 1 negative connection
11	CAP3P	--	Capacitor 3 positive connection
12	V _{OUT}	--	DC/DC voltage converter output
13	V _{SS}	0V	GND
14	V _{DD}	3.2 to 3.6V	Power supply for logic
15	SI	H/L	Serial data input
16	SCL	H/L	Serial clock input
17	A0	H/L	H: Display data L: Instruction code
18	RSTP	L	Reset signal. Active "L".
19	CS1B	L	Chip selection signal. Active "L".
20	NC	--	No connection

BLOCK DIAGRAM



LED BACKLIGHT SPECIFICATIONS (T_a=25°C)

Item	Symbol	Typ.	Max.	Unit
Forward Voltage	V _f	3.1	3.3	V
Forward Current	I _f	45	--	mA
LED Color		White		