

### ABSOLUTE MAXIMUM RATINGS

Item	Symbol	Min.	Max.	Unit
Supply Voltage(Logic)	V <sub>DD</sub> - V <sub>SS</sub>	-0.3	4.0	V
Supply Voltage(LCD)	V <sub>LCD</sub> - V <sub>SS</sub>	-0.3	17.0	V
Input Voltage	V <sub>I</sub>	-0.3	V <sub>DD</sub> + 0.5	V
Operating Temp.	T <sub>opr</sub>	-20	70	°C
Storage Temp.	T <sub>stg</sub>	-30	80	°C

### MECHANICAL DATA

Item	Nominal Dimensions	Unit
Module Size ( W x H x T )	98.7 x 67.7 x 10.5	mm
Viewing Area ( W x H )	92.0 x 52.0	mm
Dot Pitch ( W x H )	0.35 x 0.35	mm
Dot Size ( W x H )	0.325 x 0.325	mm
Weight	Approx. 58	g

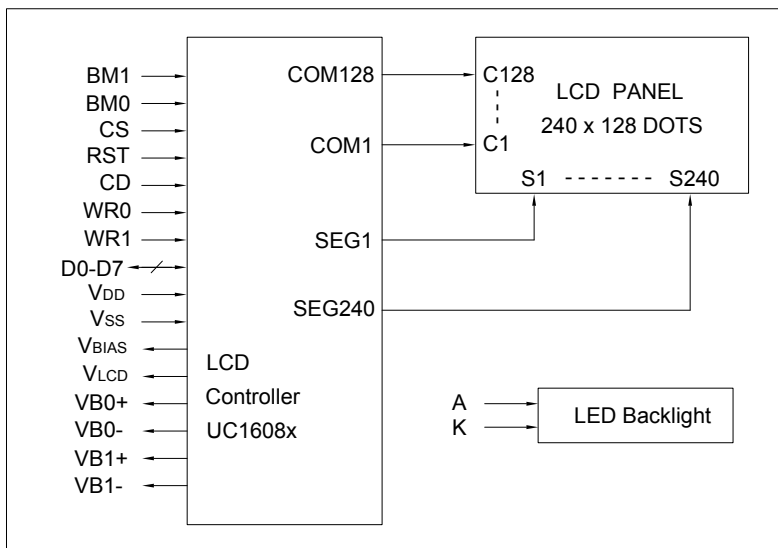
### ELECTRICAL CHARACTERISTICS ( V<sub>DD</sub>=3.0V to 3.6V )

Item	Symbol	Test Condition	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	--	0.2V <sub>DD</sub>	V
Output High Voltage	V <sub>OH</sub>	--	0.8V <sub>DD</sub>	--	V <sub>DD</sub>	V
Output Low Voltage	V <sub>OL</sub>	--	0	--	0.2V <sub>DD</sub>	V
Supply Current	I <sub>DD</sub>	V <sub>DD</sub> = 3.3V	--	1.0	1.5	mA
LCD Driving Voltage	V <sub>LCD</sub> -V <sub>SS</sub>	T <sub>a</sub> =25°C	--	15.2	--	V

### PIN CONNECTIONS

Pin	Symbol	Level	Function
1	VB1-	--	LCD bias voltage
2	VB1+	--	LCD bias voltage
3	VB0-	--	LCD bias voltage
4	VB0+	--	LCD bias voltage
5	VLCD	--	LCD driving voltage. V <sub>LCD</sub> is generated internally by UC1608.
6	VBIAS	--	Reference voltage to generate lcd driving voltage. V <sub>BIAS</sub> is used for LCD contrast fine turning.
7	VSS	0V	GND
8	VDD	3V-3.6V	Power supply for logic and booster
9-16	D7-D0	H/L	Data bus
17	WR1	H/L	/RD for 80 MPU, E for 68 MPU
18	WRO	H/L	/WR for 80 MPU, R/W for 68 MPU
19	CD	H/L	H:Display data L:Instruction code
20	RST	L	Reset signal. Active "L".
21	CS	H	Chip selection signal. Active "H".
22	BM0	H/L	Bus mode selection
23	BM1	H/L	

### BLOCK DIAGRAM



### LED BACKLIGHT SPECIFICATIONS (T<sub>a</sub>=25°C)

Item	Symbol	Typ.	Max.	Unit
Forward Voltage	V <sub>f</sub>	3.1	3.3	V
Forward Current	I <sub>f</sub>	90	--	mA
LED Color		White		