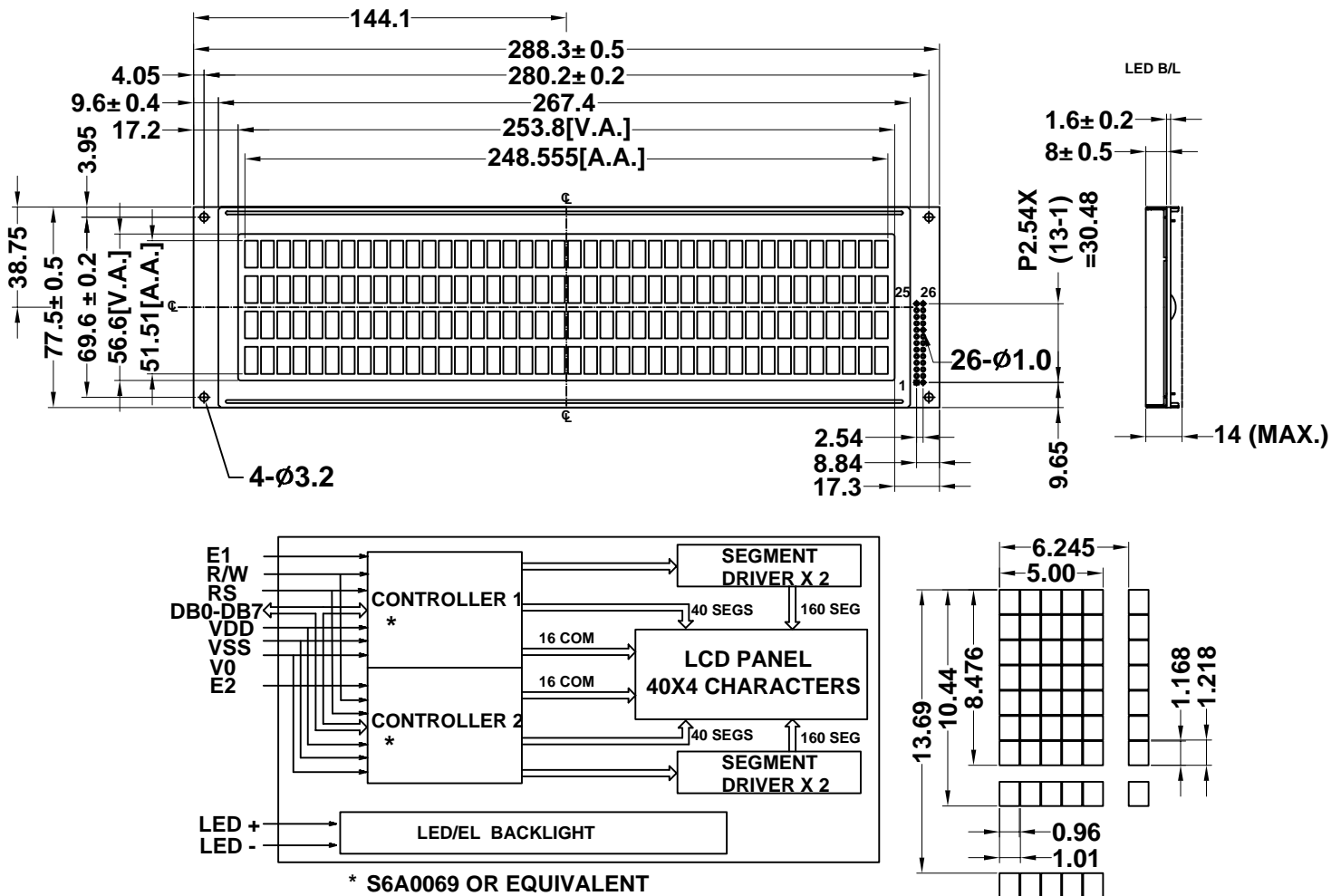


# BHC4004B

## CONTOUR DRAWING & BLOCK DIAGRAM



MECHANICAL SPECIFICATION		
ITEM	SPECIFICATION	UNIT
Module Size	288.3X77.5X14.0	mm
Viewing Area	253.8X56.6	mm
Character Font	5 x 7 + cursor	dots
Character Size	5.00X10.44	mm
Character Pitch	6.245X13.69	mm
Dot Size	0.96X1.168	mm

ABSOLUTE MAXIMUM RATINGS				
PARAMETER	SYMBOL	MIN.	MAX.	UNIT
Supply Voltage	V <sub>dd</sub>	-0.3	7.0	V
LCD Supply Voltage	V <sub>lcd</sub> (V <sub>dd</sub> -V <sub>0</sub> )	V <sub>dd</sub> -12.0	V <sub>dd</sub> +0.3	V
Input Voltage	V <sub>in</sub>	-0.3	V <sub>dd</sub> +0.3	V
Operating Temperature*	T <sub>op</sub>	0/-20	50/70	° C
Storage Temperature*	T <sub>str</sub>	-10/-30	60/80	° C

\*T1/T2: T1 for standard temperature LCM, T2 for wide temperature LCM

PIN CONNECTIONS		
PIN	SYMBOL	DESCRIPTION
1	V <sub>ss</sub>	Power Supply : 0V
2	V <sub>dd</sub>	Power Supply : +5V
3	V <sub>0</sub>	Power Supply for LCD
4	RS	Register Select
5	R/W	Read/Write
6	E1	Enable For Chip1
7 to 14	DB0 to DB7	Data Bus
15	E2	Enable For Chip2
16	NC	NO CONNECT
17	A	Anode for backlight
18	K	Cathode for backlight

ELECTRICAL CHARACTERISTICS (T <sub>a</sub> =25° C)						
ITEM	SYMBOL	CONDITION	MIN.	TYP.	MAX.	UNIT
Supply Voltage(logic)	V <sub>dd</sub>	-	4.5	5.0	5.5	V
Supply Current(logic)	I <sub>dd</sub>	V <sub>dd</sub> =5.0	5.5	6.0	8.0	mA
Driving Voltage(LCD)	V <sub>lcd</sub>	-	8.5	9.0	9.5	V
Driving Current(LCD)	I <sub>lcd</sub>	-	-	0.3	0.7	mA

BACKLIGHT CHARACTERISTICS (T <sub>a</sub> =25° C)						
PARAMETER	SYMBOL	CONDITION	MIN.	TYP.	MAX.	UNIT
Supply Voltage	V <sub>f</sub>	-	3.8	4.2	4.3	V
LED Forward Current	I <sub>f</sub>	V <sub>f</sub> =4.2V	-	2200	-	mA
LED Dissipation	P <sub>d</sub>	-	-	11000	-	mW