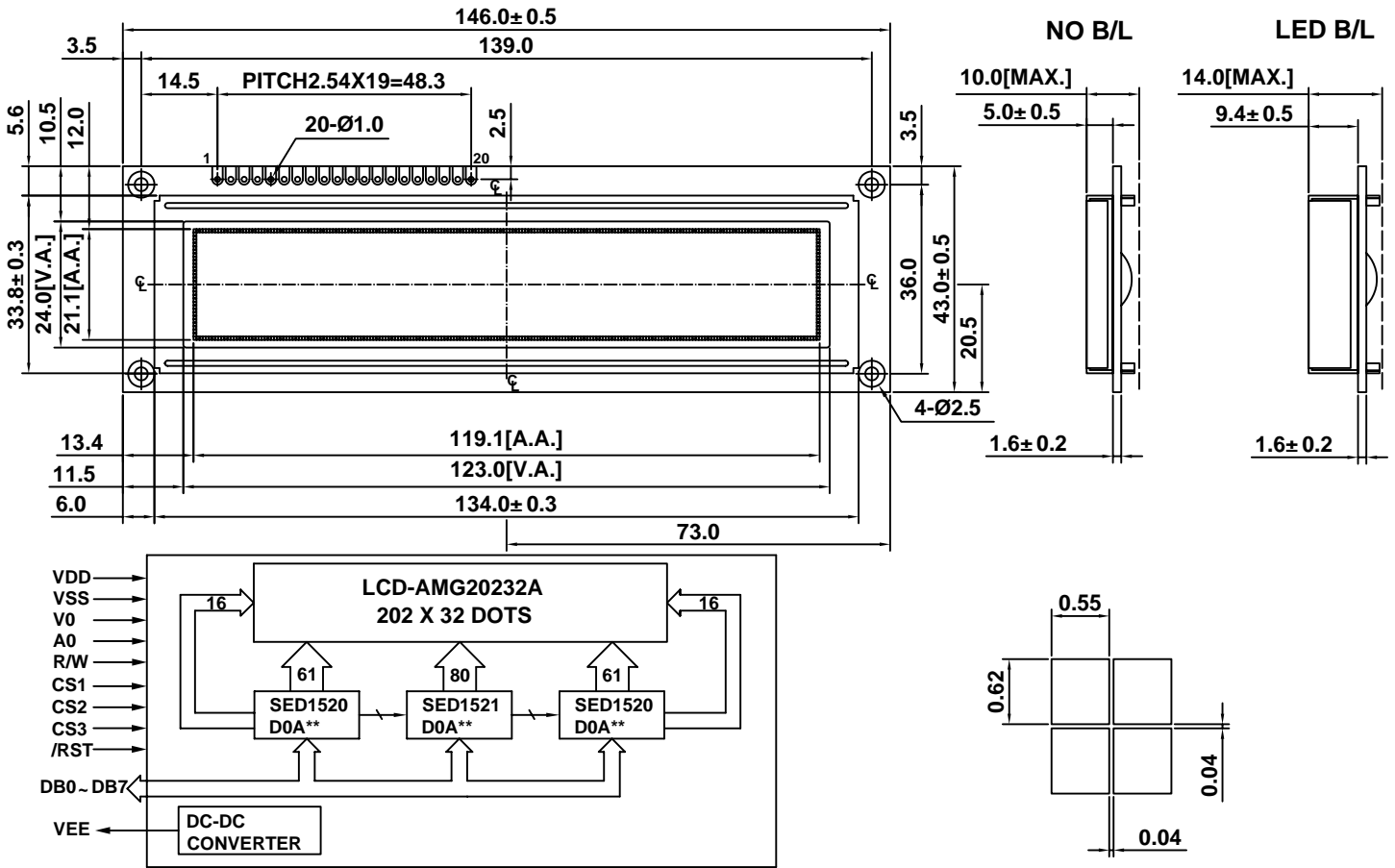


BHG20232A

CONTOUR DRAWING & BLOCK DIAGRAM



** OR EQUIVALENT

MECHANICAL SPECIFICATION		
ITEM	SPECIFICATION	UNIT
Module Size	146.0X43.0X10.0/14.0	mm
Viewing Area	123.0X24.0	mm
Number of dots	202X32	dots
Dot Pitch	0.59X0.66	mm
Dot Size	0.55X0.62	mm

ABSOLUTE MAXIMUM RATINGS				
PARAMETER	SYMBOL	MIN.	MAX.	UNIT
Supply Voltage	Vdd	-0.3	7.0	V
LCD Supply Voltage	Vlcd(Vdd-V0)	0	12	V
Input Voltage	Vin	-0.3	Vdd+0.3	V
Operating Temperature*	Top	0/-20	50/70	° C
Storage Temperature*	Tstr	-10/-30	60/80	° C

PIN CONNECTIONS		
PIN	SYMBOL	DESCRIPTION
1	VSS	Ground
2	VDD	Supply voltage for LCD(+)
3	V0	Supply voltage for LCD(-)
4	A0	Register Select
5	R/W	Read/Write
6	/CS1	Chip Select 1
7-14	DB0-DB7	Data Bus
15	VEE	Negative Voltage
16	/RST	Reset signal
17	A	Anode for backlight
18	K	Cathode for backlight
19	/CS2	Chip Select 2
20	/CS3	Chip Select 3

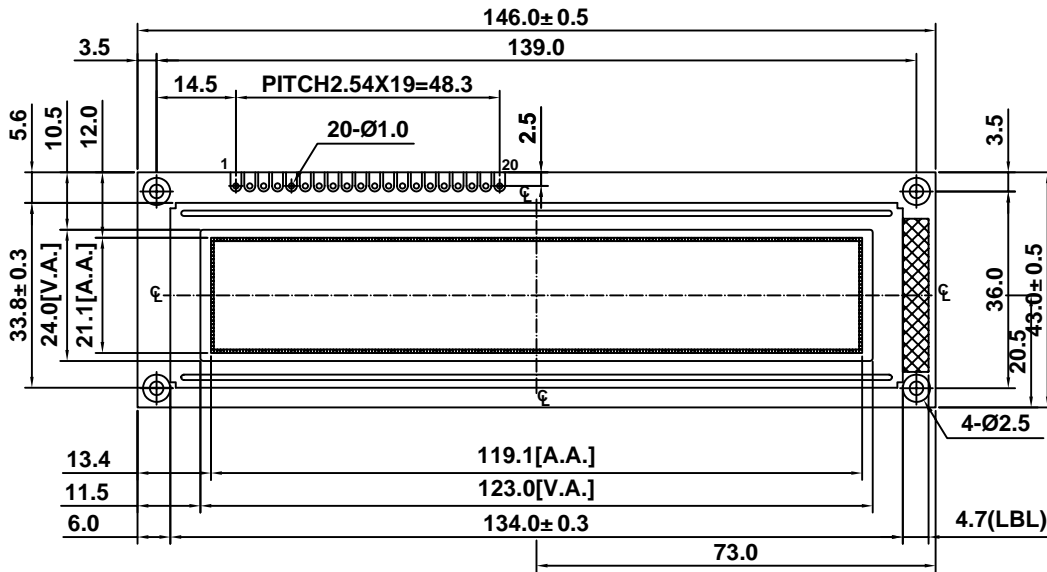
ELECTRICAL CHARACTERISTICS(Ta=25° C)						
ITEM	SYMBOL	CONDITION	MIN.	TYP.	MAX.	UNIT
Supply Voltage(logic)	Vdd	-	4.5	5.0	5.5	V
Supply Current(logic)	Idd	Vdd=5.0	4.7	4.8	4.9	mA
Driving Voltage(LCD)	Vlcd	-	5.4	5.7	6.0	V
Driving Current(LCD)	Ilcd	-	-	-	-	mA

BACKLIGHT CHARACTERISTICS (Ta=25° C)						
PARAMETER	SYMBOL	CONDITION	MIN.	TYP.	MAX.	UNIT
Supply Voltage	Vf	If=300mA	3.8	4.2	4.3	V
LED Forward Current	If	-	-	300	-	mA
LED Dissipation	Pd	-	-	1260	-	mW

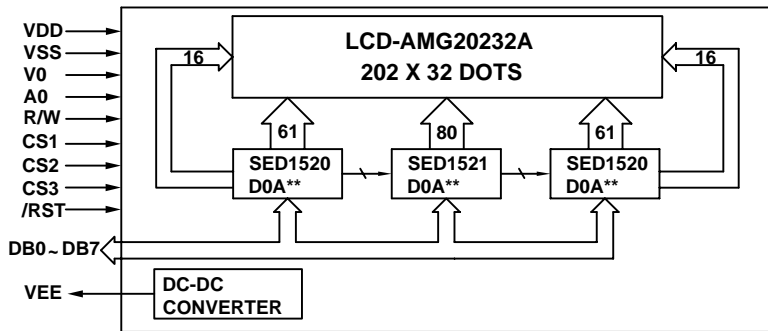
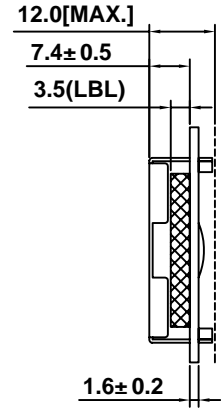
*T1/T2: T1for standard temperature LCM, T2 for wide temperature LCM

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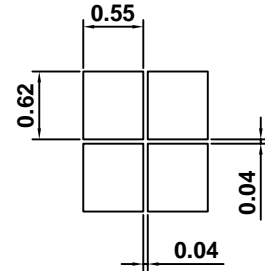
CONTOUR DRAWING & BLOCK DIAGRAM



WHITE LED B/L



** OR EQUIVALENT



MECHANICAL SPECIFICATION		
ITEM	SPECIFICATION	UNIT
Module Size	146.0X43.0X10.0/14.0	mm
Viewing Area	123.0X24.0	mm
Number of dots	202X32	dots
Dot Pitch	0.59X0.66	mm
Dot Size	0.55X0.62	mm

ABSOLUTE MAXIMUM RATINGS				
PARAMETER	SYMBOL	MIN.	MAX.	UNIT
Supply Voltage	Vdd	-0.3	7.0	V
LCD Supply Voltage	Vlcd(Vdd-V0)	0	12	V
Input Voltage	Vin	-0.3	Vdd+0.3	V
Operating Temperature*	Top	0/-20	50/70	° C
Storage Temperature*	Tstr	-10/-30	60/80	° C

PIN CONNECTIONS		
PIN	SYMBOL	DESCRIPTION
1	VSS	Ground
2	VDD	Supply voltage for LCD(+)
3	V0	Supply voltage for LCD(-)
4	A0	Register Select
5	R/W	Read/Write
6	/CS1	Chip Select 1
7-14	DB0-DB7	Data Bus
15	VEE	Negative Voltage
16	/RST	Reset signal
17	A	Anode for backlight
18	K	Cathode for backlight
19	/CS2	Chip Select 2
20	/CS3	Chip Select 3

ELECTRICAL CHARACTERISTICS(Ta=25° C)						
ITEM	SYMBOL	CONDITION	MIN.	TYP.	MAX.	UNIT
Supply Voltage(logic)	Vdd	-	4.5	5.0	5.5	V
Supply Current(logic)	Idd	Vdd=5.0	4.7	4.8	4.9	mA
Driving Voltage(LCD)	Vlcd	-	5.4	5.7	6.0	V
Driving Current(LCD)	Ilcd	-	-	-	-	mA

BACKLIGHT CHARACTERISTICS (Ta=25° C)						
PARAMETER	SYMBOL	CONDITION	MIN.	TYP.	MAX.	UNIT
Supply Voltage	Vf	If=45mA	2.9	3.2	3.5	V
LED Forward Current	If	-	-	45	-	mA
LED Dissipation	Pd	-	-	144	-	mW

*T1/T2: T1for standard temperature LCM, T2 for wide temperature LCM