

20 Character x 4 Lines, LED Backlight Small Size



Module Size65.0W x 28.4H x 7.6T mm
Viewing Area Size.....46.0W x 18.4H mm
Weight.....28g

PARAMETER	SYMBOL	MIN	MAX	UNIT
SUPPLY VOLTAGE	$V_{DD}-V_{SS}$	0	7.0	V
SUPPLY VOLTAGE FOR LCD	$V_{DD}-V_L$	0	13.0	V
INPUT VOLTAGE	V_{IN}	$V_{SS}-0.3$	$V_{DD}+0.3$	V
OPERATING TEMPERATURE	T_{OP}	0	50	°C
STORAGE TEMPERATURE	T_{STG}	-20	70	°C
LED FORWARD CURRENT	I_F	-	200	mA
LED REVERSE VOLTAGE	V_R	-	8	V
LED POWER CONSUMPTION	P_D	-	800	mW

PARAMETER	SYM	CONDITION	MIN	TYP	MAX	UNIT
INPUT HIGH VOLTAGE	V_{IH}	-	$0.7V_{DD}$	-	-	V
INPUT LOW VOLTAGE	V_{IL}	-	-	-	0.6	V
OUTPUT HIGH VOLTAGE	V_{OH}	$I_{OH} = 0.2mA$	$0.75V_{DD}$	-	-	V
OUTPUT LOW VOLTAGE	V_{OL}	$I_{OL} = 1.2mA$	-	-	$0.2V_{DD}$	V
POWER SUPPLY CURRENT	I_{DD}	$V_{DD} = 5.0V$	2	-	-	mA
POWER SUPPLY FOR LCD	$V_{DD}-V_L$	$T_A = 25^{\circ}C$	-	-	-	V
LED FORWARD VOLTAGE	V_F	$I_F = 110mA$	3.9	4.1	4.3	V
BRIGHTNESS	L	$I_F = 110mA$	30	45	-	NIT
DRIVE METHOD	1/32 Duty					

The diagram shows the HD66712 LCD controller at the center. It has the following connections:

- Data Bus:** D0-D7 connected to the LCD panel via a 40-pin bus.
- Control Signals:** E, R/W, RS, and V_L connected to the controller.
- Power:** V_{DD} and V_{SS} connected to the controller.
- Backlight:** K and A pins connected to an LED BACKLIGHT.
- LCD Panel:** The LCD PANEL is connected to the controller via COM and data lines. The panel is also connected to two DRIVERS, which are connected to the LED BACKLIGHT.

PIN NO.	SYMBOL	LEVEL	FUNCTION	
1	V _{SS}	-	0V	Power supply
2	V _{DD}	-	5V	
3	V _L	-	-	
4	RS	H/L	H: Data input L: Instruction data input	
5	R/W	H/L	H: Data read L: Data write	
6	E	H,H→L	Enable signal	
7	D0	H/L	Data bus	
8	D1	H/L		
9	D2	H/L		
10	D3	H/L		
11	D4	H/L		
12	D5	H/L		
13	D6	H/L		
14	D7	H/L		
15	A	-	Anode for LED backlight	
16	K	-	Cathode for LED backlight	